

APPENDIX ONE: CHALLENGING CHALLENGE RATINGS

Appendix One (Challenging Challenge Ratings) details how to accurately determine a monster's Challenge Rating (all core and epic monster CRs are given at the end of the appendix).

Appendix Two (Encountering Encounter Levels) outlines how Challenge Ratings properly relate to Encounter Levels.

Appendix Three (Design Parameters) gives some advice on how to balance class and monster design.

BENEFITS OF THIS SYSTEM

- Accuracy: it generates much more accurate results.
- Balance: provides guidelines for homebrew monster design.
- Certainty: removes guesswork, which often leads to mistakes.
- Exploratory: promotes experimentation with the system.
- Flexibility: provides more campaign flexibility (such as restructuring for Low Magic campaigns).
 - Integral: easily integrated into the current rules.
 - Modular: can be adjusted and tailored by individual DMs.
 - Necessity: is a virtual necessity at epic levels, otherwise any thoughts of balance quickly unravel.
- Sensible: elements like Monster Advancement now credibly handled.
- Unlimited: functions at any conceivable measure of power.

EFFECTIVE CLASS LEVELS (ECL)

It should be noted that within these rules challenge rating (CR) always equals effective class levels (ECL).

CHALLENGING CHALLENGE RATINGS

Appendix One

Challenge Ratings (CRs) are a measurement of power. There are two general principles regarding CR: firstly that it signifies a moderately challenging encounter for a party of 4-5 characters of the same power....

eg. CR 15 suggests the opponent would be a moderate challenge for a party of four (or five) 15th-level characters.

...secondly, that CR parallels character level.

eg. A 10th-level character is CR 10.

To determine CR, what was needed was a list of all the relevant factors involved; and our best estimation of the effect they have on CR. These factors are outlined below.

HOW DO FACTORS WORK?

To determine a Monster's Challenge Rating:

- Total all factors
- Check Golden Rule
- Round down all fractions if the total is 4 or more, if the total is less than 4 apply the result to Table 1-1
- (Optional) Silver Rule (see Appendix 3: Design Parameters)

GOLDEN RULE

Class Levels or Hit Dice should always comprise at least 50% of the creature's total CR. When they don't, halve all excess CR beyond double the creature's CR modifier for Class Levels and Hit Dice.

eg. Planetar = Factor Total 33.598
 14 Outsider Hit Dice Factor = 9.8
 Halve any excess CR beyond 19.6 (x2 HD Factor)
 $33.598 - 19.6 = 13.998$
 $13.998 \div 2 = 6.999$
 $19.6 + 6.999 = \text{CR } 26.599$

TABLE 1-1: FRACTIONAL CHALLENGE RATINGS

Result	CR	Encounter Level*
5	5	10
4	4	9
3.5	3.5	8
3	3	7
2.5	2.5	6
2	2	5
1.75	1.75	4
1.5	1.5	3
1.25	1.25	2
1	1	1
0.5	2/3	2/3
0	1/2	1/2
-0.5	1/3	1/3
-1	1/4	1/4
-1.25	1/5	1/5
-1.5	1/6	1/6
-1.75	1/7	1/7
-2	1/8	1/8
-2.125	1/9	1/9
-2.25	1/10	1/10

*See Appendix Two: Encountering Encounter Levels

eg. Dire Rat: 0.86 (rounds to 0.5) = CR 2/3
 Vargouille: 1.675 (rounds to 1.5) = CR 1.5
 Zombie Human: 0.233 (rounds to 0) = CR 1/2
 Cat: -1.035 (rounds to -1.5) = CR 1/6

LIST OF FACTORS

1. Character Levels (Prestige Classes and NPC Classes)

2. Templates

3. Size

4. Traits (Type/Subtype/Race)

5. Hit Dice

6. Speed

7. Armor Class

8. Full Attack

9. Special Abilities/Qualities

9.01 Ability Score Loss

9.02 Breath Weapons

9.03 Create Spawn

9.04 Damage Reduction

9.05 Disease

9.06 Energy Drain

9.07 Energy Resistance

9.08 Fast Healing

9.09 Gaze Weapons

9.10 Generic Abilities

9.11 Immunities

9.12 Insight/Luck/Profane/Sacred Bonuses

9.13 Poison

9.14 Ray Attacks

9.15 Regeneration

9.16 Spell-like Abilities

9.17 Spell Resistance

9.18 Spells (Integrated Spell Levels)

9.19 Summon

9.20 Touch Attacks

9.21 Turn Resistance

9.22 Unusual Abilities

9.23 Vulnerabilities

10. Abilities

11. Skills

12. Feats

13. Equipment

APPENDIX ONE: CHALLENGING CHALLENGE RATINGS

1. CHARACTER LEVELS

All Class/Prestige Class Levels

CR +0.8 /Level (without equipment*)

NPC Class Levels

CR +0.7 /Level of Warrior (without equipment*)

CR +0.65 /Level of Aristocrat (without equipment*)

/Level of Expert (without equipment*)

CR +0.6 /Level of Adept (without equipment*)

CR +0.45 /Level of Commoner (without equipment*)

*See Factor #13 Equipment.

eg. 10th-level Rogue = CR +8

10th-level Rogue/5th-level Assassin = +12

7th-level Warrior = CR +4.9

5th-level Commoner = CR +2.25

2. TEMPLATES

Celestial Template = CR Variable +0.7 (1 HD) to +2.83 (20 HD)

eg. Celestial Template on 12 HD creature = CR +1.95

Acid Resistance (10) CR +0.2

Cold Resistance (10) CR +0.2

Damage Reduction CR +0.33

Darkvision CR +0.2

Electricity Resistance (10) CR +0.2

Smite Evil CR +0.2

Spell resistance (17) CR +0.7

Fiendish Template = CR Variable +0.6 (1 HD) to +2.63 (20 HD)

The Fiendish Template is identical to the Celestial Template (see above) except for the following:

1. Remove Electricity Resistance altogether.
2. Change Acid Resistance to Fire Resistance.

Ghost Template = CR +6.6 (+ special*)

Ability Score Bonuses (+4) CR +0.4

Deflection CR +0.5

Fly (Perfect) CR +1

Incorporeal (Manifestation) CR +1.3

Rejuvenation CR +1

Skill bonuses (+32) CR +0.6

Turn Resistance +4 CR +0.2

Undead (Intelligent) CR +1.6

*Plus 1d3 abilities from the following list:

Corrupt Gaze CR +1.95

Corrupt Touch CR +0.2

Draining Touch CR +0.75

Frightful Moan CR +0.5

Horrid Appearance CR +2

Malevolence CR +0.25

Telekinesis CR +0.15

Half-Celestial Template = CR Variable +3.2 (1 HD) to +9.87 (20 HD)

eg. Half-Celestial Template on 20 HD creature = CR +9.87

Ability Scores (+20) CR +2

Acid Resistance (10) CR +0.2

Cold Resistance (10) CR +0.2

Damage Reduction CR +0.33

Darkvision CR +0.2

Disease Immunity CR +0.2

Electricity Resistance (10) CR +0.2

Flight (Good) CR +0.8

Natural Armor +1 CR +0.1

Poison save +4 CR +0.04

Smite Evil CR +0.2

Spell-like Abilities CR +3.4

Spell Resistance (30) CR +2

Half-Dragon Template = CR +4.25

Ability Scores (+14) CR +1.4

Breath Weapon CR +0.15

Dragon Type Traits CR +0.5

Energy Immunity (Variable) CR +1

Flight (Average) CR +0.6

Improved Hit Die Type CR +0.2

Natural Armor (+4) CR +0.4

Half-Fiend Template = CR Variable +3.06 (1 HD) to +9.03 (20 HD)

eg. Half-Fiend Template on 20 HD creature = CR +9.23

Ability Scores (+16) CR +1.6

Acid Resistance (10) CR +0.1

Cold Resistance (10) CR +0.1

Damage Reduction CR +0.33

Darkvision CR +0.2

Disease Immunity CR +0.2

Electricity Resistance (10) CR +0.2

Flight (Average) CR +0.6

Natural Armor +1 CR +0.1

Poison Immunity CR +0.2

Smite Good CR +0.2

Spell-like Abilities CR +3.2

Spell Resistance (30) CR +2

Lich Template = CR +7.87

Ability Scores (+6) CR +0.6

Cold Immunity CR +1

Damage Reduction CR +0.75

Electricity Immunity CR +1

Fear Aura (limited) CR +0.2

Natural Armor +5 CR +0.5

Paralyzing Touch CR +0.2

Phylactery CR +1

Polymorph Immunity CR +0.2

Skill Bonuses (+56) CR +1.12

Turn Resistance +4 CR +0.2

Undead (Intelligent) CR +1.1

Lycanthrope Template = CR Variable (See Below)

Ability Scores (+2) CR +0.2

Alternate Form CR +0.2

Curse CR +0.2

Damage Reduction CR +0.125 (Afflicted)

CR +0.25 (Natural)

Empathy CR +0.08

Feat (Bonus) CR +0.2

Low-Light Vision CR +0.1

Natural Armor (+2) CR +0.2

Scent CR +0.2

Additional Ability Scores based on Animal Form:

Werebear (+26) CR +2.6 Total CR +5.23

Wereboar (+10) CR +1 Total CR +2.63

Wererat (+8) CR +0.8 Total CR +2.43

Weretiger (+22) CR +2.2 Total CR +4.83

Werewolf (+10) CR +1 Total CR +2.63

WereDireboar (+22) CR +2.2 Total CR +4.83

Vampire Template = CR +7.075

Ability Scores (+18) CR +1.8

Alternate Form CR +0.2

Blood Drain CR +0.5

Children of the Night CR +0.2

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Cold Resistance 10	CR +0.2
Create Spawn	CR +0.3
Damage Reduction	CR +0.5
Dominate	CR +0.5
Electricity Resistance 10	CR +0.2
Energy Drain (2 Levels)	CR +0.8
Fast Healing 5	CR +0.375
Feats (Bonus +5)	CR +1
Gaseous Form	CR +1
Natural Armor +6	CR +0.6
Skills (+56)	CR +1.1
Spider Climb	CR +0.2
Turn Resistance +4	CR +0.2
Undead (Intelligent) Traits	CR +1.1
Repelling/Warding Vulnerability	CR -0.5
Staking Vulnerability	CR -0.2
Sunlight Vulnerability	CR -2.5
Water Vulnerability	CR -0.5

3. SIZE

Apply the following bonus or penalty where applicable.

NB. These modifiers do not account for Natural Armor increases derived from size. See Factor #7 Armor Class.

TABLE 1-2: CHALLENGE RATING MODIFIER FOR SIZE

Size	CR Modifier	No Constitution*
Fine	CR -0.35	CR -0.15
Diminutive	CR -0.8	CR -0.6
Tiny	CR -0.85	CR -0.65
Small	CR -0.4	CR -0.2
Medium	CR +/-0	CR +/-0
Large	CR +1.2	CR +0.8
Huge	CR +2.4	CR +1.6
Gargantuan	CR +3.6	CR +2.4
Colossal	CR +4.4	CR +2.8
Colossal +	CR +4.4	CR +2.4
Colossal ++	CR +2.8	CR +0.4
Colossal +++	CR -2.2	CR -5
Colossal ++++	CR -13.2	CR -16.4

*For Constructs and Undead.

eg. Purple Worm (Gargantuan) = CR +4.4
Colossal Zombie = CR +3.7

4. TRAITS (TYPE/SUBTYPE/RACE)

Apply the following bonus or penalty where applicable.

TABLE 1-3: CHALLENGE RATING MODIFIERS FOR TRAITS

Type	Challenge Rating Modifier
Aberration	+0.2 (from Darkvision)
Animal	-0.75
Construct	+0.7/+2.4(Intelligent)
Dragon	+0.5
Elemental	+1.2
Fey	+0.1 (from Low Light Vision)
Giant	+0.2 (from Darkvision)
Humanoid	+/-0
Magical Beast	+0.2 (from Darkvision)
Monstrous Humanoid	+0.2 (from Darkvision)
Ooze	+1.9/2.6 (Intelligent)
Outsider	+/-0
Plant	+1.8
Undead (Intelligent)	+1.1
Undead (Mindless)	-1.1
Vermin	-0.5

Subtype	Challenge Rating Modifier
Angel	+3.44
Archon	+2.14
Cold	+0.5
Demon	+1.9 (not counting Summon)
Devil	+1.8 (not counting Summon)
Eladrin	+1.9
Fire	+0.5
Guardinal	+2.24
Incorporeal	+1.3 (not counting Deflection)
Swarm (Tiny)	+2.66
Swarm (Diminutive or Fine)	+7
Race	Challenge Rating Modifier
Dwarf	+0.51
Elf	+0.36
Gnome	+0.3625
Half-Elf	+0.38
Halfling	+0.48
Half-Orc	+/-0
Human	+0.3

TYPE TRAITS

Animal Type Traits = CR -0.75

Intelligence 1 or 2	CR -0.85
Low Light Vision	CR +0.1

Construct Type Traits = CR +0.7 (Intelligent = CR +2.4)

Constitution 0	CR +1.9
Darkvision	CR +0.2
Hit Point Bonus	CR +0.2
Intelligence 0	CR -0.7
Low-Light Vision	CR +0.1
No Natural Healing	CR -1

Dragon Type Traits = CR +0.5

Darkvision	CR +0.2
Low-Light Vision	CR +0.1
Paralysis/Sleep Immunity	CR +0.2

Elemental Type Traits = CR +1.2

Cannot be Raised etc.	CR -0.2
Cannot be Flanked	CR +0.2
Critical Hit Immunity	CR +0.5
Darkvision	CR +0.2
Poison Immunity	CR +0.2
Sleep/Paralysis/Stun Immunity	CR +0.3

Ooze Type Traits = CR +1.9 (Intelligent = CR +2.6)

Blindsight	CR +1
Critical Hit Immunity	CR +0.5
Cannot be Flanked	CR +0.2
Hit Point Bonus	CR +0.2
Intelligence 0	CR -0.7
Poison Immunity	CR +0.2
Polymorph Immunity	CR +0.2
Sleep/Paralysis/Stun Immunity	CR +0.3

Outsiders Type Traits = CR +/-0

Cannot be raised etc.	CR -0.2
Darkvision	CR +0.2

Plant Type Traits = CR +1.8

Critical Hit Immunity	CR +0.5
Low Light Vision	CR +0.1
Mind Effects Immunity	CR +0.5
Poison Immunity	CR +0.2
Polymorph Immunity	CR +0.2
Sleep/Paralysis/Stun Immunity	CR +0.3

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(Intelligent) Undead Type Traits = CR +1.1

Can be Turned etc.	CR -1.5
Constitution 0	CR +1.9
Darkvision	CR +0.2
Immune to Mind Effects	CR +0.5

(Mindless) Undead Type Traits = CR -1.1

Can be Turned etc.	CR -1.5
Constitution 0	CR +1.9
Darkvision	CR +0.2
Intelligence 0	CR -0.7
No Natural Healing	CR -1

Vermin Type Traits = CR -0.5 (Intelligent = CR +0.2)

Darkvision	CR +0.2
Intelligence 0	CR -0.7

SUBTYPE TRAITS

Angel Subtype Traits = CR +3.44

Acid Immunity	CR +1
Cold Immunity	CR +1
Electricity Resistance 10	CR +0.2
Fire Resistance 10	CR +0.2
Low-Light Vision	CR +0.1
Petrification Immunity	CR +0.2
Poison Save +4	CR +0.04
Protective Aura	CR +0.5
Tongues	CR +0.2

Archon Subtype Traits = CR +2.14

Aura of Menace	CR +0.2
Electricity Immunity	CR +1
Low-Light Vision	CR +0.1
Magic Circle vs. Evil	CR +0.2
Petrification Immunity	CR +0.2
Poison save +4	CR +0.04
Teleport	CR +0.2
Tongues	CR +0.2

Cold Subtype Traits = CR +0.5

Cold Immunity	CR +1
Fire Vulnerability	CR -0.5

Demon Subtype Traits = CR +1.9

Acid Resistance 10	CR +0.2
Cold Resistance 10	CR +0.2
Electricity Immunity	CR +1
Fire Resistance 10	CR +0.2
Poison Immunity	CR +0.2
Summon	Factor Separately
Telepathy	CR +0.1

Devil Subtype Traits = CR +1.8

Acid Resistance 10	CR +0.2
Cold Resistance 10	CR +0.2
Fire Immunity	CR +1
Poison Immunity	CR +0.2
See through Darkness	CR +0.1*
Summon	Factor Separately
Telepathy	CR +0.1

*Already has Darkvision from Outsider Traits.

Eladrin Subtype Traits = CR +1.9

Cold Resistance 10	CR +0.2
Electricity Immunity	CR +1
Fire Resistance 10	CR +0.2
Low-Light Vision	CR +0.1
Petrification Immunity	CR +0.2
Tongues	CR +0.2

Fire Subtype Traits = CR +0.5

Fire Immunity	CR +1
Cold Vulnerability	CR -0.5

Guardinal Subtype Traits = CR +2.24

Cold Resistance 10	CR +0.2
Electricity Immunity	CR +1
Fire Resistance 10	CR +0.2
Lay on Hands	CR +0.2
Low-Light Vision	CR +0.1
Petrification Immunity	CR +0.2
Poison save +4	CR +0.04
Sonic Resistance 10	CR +0.2
Speak with Animals	CR +0.1

Incorporeal Subtype Traits = CR +1.3

Deflection	Factor separately
Ignore Damage (50% chance)	CR +1
Ignore Solid Objects	CR +1
Move Silently	CR +0.5
Non-magical Attack Immunity	CR +1
Strength 0	CR -2.2

Swarm Subtype Traits = CR +2.66 (Tiny) /+7 (Diminutive/Fine)

Always Hit (Single Attack)	CR +1
Can't be Bull-Rushed/Tripped/Grappled	CR +0.3
Critical Hit Immunity	CR +0.5
Distraction	CR +0.5
Cannot be Flanked	CR +0.2
Spell Immunity (limited)	CR +1
Spell Vulnerability (limited)	CR -1
Weapon Resistance (Slashing/Piercing)	CR +0.66 (Tiny Only)
Weapon Immunity	CR +5 (Not Tiny)
Wind Vulnerability	CR -0.5

RACIAL TRAITS

NB. DMs discretion to ignore the impact of core racial traits less than +1 CR.

Dwarf Racial Traits = CR +0.51

Ability Scores (Total +/-0)	CR +/-0
Attack Bonus (limited)	CR +0.04
Darkvision	CR +0.2
Dodge Bonus (limited)	CR +0.04
Movement (-10 ft Speed)	CR -0.1
Movement Unrestricted by Armor	CR +0.05
Poison Save (+2)	CR +0.02
Save Bonus vs. Magic (+2)	CR +0.1
Skill Bonuses (+6)	CR +0.12
Stability	CR +0.04

Elf Racial Traits = CR +0.36

Ability Scores (Total +/-0)	CR +/-0
Low-Light Vision	CR +0.1
Save Bonus vs. Enchantment Spells (+2)	CR +0.04
Sleep Immunity	CR +0.1
Skill Bonuses (+6)	CR +0.12

Gnome Racial Traits = CR +0.3625

Ability Scores (Total +/-0)	CR +/-0
Attack Bonus (limited)	CR +0.04
Dodge Bonus (limited)	CR +0.04
Difficulty Class Bonus (to Illusions)	CR +0.05
Low-Light Vision	CR +0.1
Save Bonus vs. Illusions (+2)	CR +0.04
Skill Bonuses (+4)	CR +0.08
Small Size (Modified)	CR +/-0
Spell-like Abilities	CR +0.0125

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Half-Elf Racial Traits = CR +0.38

Low-Light Vision	CR +0.1
Save Bonus vs. Enchantment Spells (+2)	CR +0.04
Sleep Immunity	CR +0.1
Skill Bonuses (+7)	CR +0.14

Halfling Racial Traits = CR +0.48

Ability Scores (Total +/-0)	CR +/-0
Attack Bonus (limited)	CR +0.1
Morale Bonus (+2) (limited)	CR +0.02
Save Bonus (+1)	CR +0.2
Skill Bonuses (+8)	CR +0.16
Small Size (Modified)	CR +/-0

Half-Orc Racial Traits = CR +/-0

Ability Scores (Total -2)	CR -0.2
Darkvision	CR +0.2

Human Racial Traits = CR +0.3

Bonus Feat	CR +0.2
Skill Bonuses (5+)	CR +0.1

5. HIT DICE

CR +0.75/HD	Dragon
CR +0.7/HD	Outsider
CR +0.65/HD	Magical Beast
CR +0.6/HD	Monstrous Humanoid
CR +0.55/HD	Aberration
	Animal
	Elemental
	Giant
	Humanoid
	Ooze (Intelligent)
	Plant (Intelligent)
	Vermin (Intelligent)
CR +0.5/HD	Fey
CR +0.45/HD	Construct (Intelligent)*
	Ooze
	Plant
	Undead (Intelligent)*
	Vermin
CR +0.35/HD	Construct* (+0.45/HD if Intelligent)*
	Undead (Mindless)*

*Already reduced by 0.1/HD because of Constitution 0

eg. Ettin (10 HD Giant) = CR +5.5
 Hezrou (10 HD Outsider) = CR +7
 Iron Golem (18 HD Construct) = CR +6.3

6. SPEED

Apply this factor to each applicable mode of movement

Burrow:	CR +0.2 (Soil)
	CR +0.5 (Stone)
Climb:	CR +0.2
Flight:	CR +0.2 (Clumsy)
	CR +0.4 (Poor)
	CR +0.6 (Average)
	CR +0.8 (Good)
	CR +1 (Perfect)
Can't Run	CR -0.2
Swim	CR +0.2

CR +0.2/each doubling of typical speed*

CR -0.2/each halving of typical speed*

*Only apply this to the fastest mode of movement.

TABLE 1-4: TYPICAL MOVEMENT SPEEDS BY SIZE

Size	Typical Speed	
	Non-Flight	Flight
Fine	5ft	10ft
Diminutive	10ft	20ft
Tiny	15ft	30ft
Small	20ft	40ft
Medium	30ft	60ft
Large	40ft	80ft
Huge	50ft	100ft
Gargantuan	60ft	120ft
Colossal	70ft	140ft

eg. Solars Movement = CR +0.8

Flight (Good Maneuverability) = CR +0.8

Flight Speed 150ft (70ft greater than typical) = CR +/-0

7. ARMOR CLASS

CR +0.1/point of Deflection

CR +0.1/point of Natural Armor

CR +0.125/point of Insight (or Luck; Profane; Sacred Bonuses)

eg. Spectre (+2 Deflection) = CR +0.2

eg. Elder Earth Elemental (NA 15) = CR +1.5

8. FULL ATTACK

NB. Apply this factor to Monsters only (characters already have the bonus added into their character level factor).

CR +0.1/point of average damage (dice only)

CR +0.05/point of average iterative* damage (dice only)

CR -1 if the creature has no effective physical attacks

*Each second or more attack from the same natural or manufactured weapon.

eg. Dretch = CR +0.95

1d6 x2 (7) + 1d4 (2.5) = 9.5 damage

eg. Marilith = CR +6.65

2d6 x6 (42) + 2d6* x3 (10.5) + 4d6 (14) = 66.5 damage

*Iterative attacks.

eg. Balor = CR +2.125

2d6 (7) + 2d6* x3 (10.5) + 1d4 (2.5) + 1d4* (1.25) = 21.25 damage

*Iterative attacks.

9. SPECIAL ATTACKS/QUALITIES

For creatures that can ply the same special attack more than once per round, multiply the cost by the number of times it can be used **only** if its effects stack with itself.

eg. Ghoul: 3 attacks/round with Paralysis Touch. Paralysis does not stack with itself so only rate the ability once.

eg. Five-Headed Pyrohydra: 5 possible breath attacks/round dealing 3d6 fire damage. The fire damage stacks with itself so you total the effects; in this case treat as 15d6 energy damage.

9.01 ABILITY SCORE LOSS

CR +0.15/point of Ability Score Damage

CR +0.2/point of Ability Score Drain

Used as Ray Attack = CR x2

Used as Breath Weapon (1d4 round delay) = CR x2

Used as Breath Weapon (At Will) = CR x3

Used as a Gaze weapon = CR x4

eg. Wraith: 1d6 (3.5) points of Constitution Drain = CR +0.7

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9.02 BREATH WEAPON

Damage Dealing Breath Weapons

CR +0.1/ d8 Alignment based damage

d3 Divine based damage

d6 Energy based damage

d4 Force based damage

CR +0.2/ 1 point of Permanent damage

Spell Effect Breath Weapons

CR +0.2/level of duplicated Spell Effect

Converting from a Touch Spell = CR x2

Converting from a Ranged Single Target or Ray Spell = CR x1

Range: CR +0.2/doubling* of typical range

*Remember a double double equals a triple

TABLE 1-5: TYPICAL BREATH WEAPON RANGES BY SIZE

Size	Typical Ranges	
	Cone	Line
Fine	5ft	10ft
Diminutive	10ft	20ft
Tiny	15ft	30ft
Small	20ft	40ft
Medium	30ft	60ft
Large	40ft	80ft
Huge	50ft	100ft
Gargantuan	60ft	120ft
Colossal	70ft	140ft

Delay between Breaths: None CR x1.5
1d4 Round Delay CR x1

Uses/Day: 5/day (or more) CR x1
4/day CR x0.8
3/day CR x0.6
2/day CR x0.4
1/day (or less) CR x0.2

eg. Dragon Turtle Breath Weapon = CR +1.2
12d6 Energy based damage = CR +1.2
1d4 round delay = CR x1
Cone +20ft greater than typical size = CR +/-0

eg. Gorgon Breath Weapon = CR +1.8
Spell Effect: Flesh to Stone (6th-level spell) = CR +1.2
Converted from ranged single target spell effect = CR x1.5
Range: Cone +20ft greater than typical size = CR +/-0

9.03 CREATE SPAWN

CR +0.1/CR of created creature

Awakening Period: 1d4 days = CR +2

1d4 rounds = CR +/-0

eg. Wraith: create Wight (CR 5) in 1d4 rounds = CR +0.5

9.04 DAMAGE REDUCTION

CR +0.1/point of damage reduced (modified as follows)

TABLE 1-6: MODIFIERS TO DAMAGE REDUCTION

Damage Reduction defeated by	Example	Modifier
Multiple Elements	Babau	x1/4
Single Element	Zombie	x1/3
Adamantine or Epic Element	Iron Golem	x1/2
Combination of Elements	Lich	x1/2
Combination of Elements*	Solar	x3/4
No Elements	Mummy	x1
No Elements (Hardness)	-	x2

*including either Adamantine, Epic, or both.

eg. Babau (DR 10/cold iron **or** good) = CR +0.25 (1 x 1/4)

Zombie (DR 5/slashing) = CR +0.166 (0.5 x 1/3)

Iron Golem (DR 15/adamantine) = CR +0.75 (1.5 x 1/2)

Lich (DR 15/bludgeoning **and** magic) = CR +0.75 (1.5 x 1/2)

Solar (DR 15/**epic and** evil) = CR +1.125 (1.5 x 3/4)

Mummy (DR 5/-) = CR +0.5 (0.5 x 1)

9.05 DISEASE

CR +0.03/point of ability damage

CR +0.04/point of ability drain

Cannot be overcome naturally = CR x2

Incubation Period: 1 Week = CR +2

1 Day = CR x1

1 Hour = CR x2

1 Minute = CR x4

1 Round = CR x8

Used as Breath Weapon (1d4 round delay) = CR x2

Used as Breath Weapon (At Will) = CR x3

eg. Mummy Rot = CR +1.68

1d6 (3.5) CON & 1d6 (3.5) CHA damage = CR +0.21

Cannot be overcome naturally = CR x2

Incubation Period 1 minute = CR x4

9.06 ENERGY DRAIN

CR +0.4/Energy Level drained

Used as Ray Attack = CR x2

Used as Breath Weapon (1d4 round delay) = CR x2

Used as Breath Weapon (At Will) = CR x3

Used as a Gaze weapon = CR x4

eg. Spectre (2 Level Energy Drain) = CR +0.8

9.07 ENERGY RESISTANCE

CR +0.2/10 points of Energy Resistance

eg. Quasit (Fire Resistance 10) = CR +0.2

9.08 FAST HEALING

CR +0.075/point of Fast Healing

eg. Marut (Fast Healing 10) = CR +0.75

9.09 GAZE ATTACKS

Spell Effect Gaze Attacks

CR +0.2/level of duplicated spell effect

Converting effect from a touch spell = CR x4

Converting effect from a ranged single target/ray spell = CR x2

Converting effect from an area spell = CR x1.5

Range: CR +0.2/doubling of typical range

Typical Gaze Weapon Range = 30 ft.

eg. Medusas Gaze = CR +2.4

Spell Effect: Flesh to Stone (6th-level spell) = CR +1.2

Converted from ranged single target spell effect = CR x2

Range: Typical = CR x1

9.10 GENERIC ABILITIES

Alternate Form CR +0.2

Blindsense CR +0.2

Blindsight CR +1

Change Shape CR +0.5

Constrict CR +0.05/point of average damage (dice only)

Crush CR +0.05/point of average damage (dice only)

Darkvision CR +0.2

Fear Aura CR +0.5

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Frightful Presence	CR +0.5
Improved Grab	CR +0.2
Low-Light Vision	CR +0.1
Pounce	CR +0.2
Powerful Charge	CR +0.05/point of average damage (dice only)
Rake	CR +0.05/point of average damage (dice only)
Rend	CR +0.05/point of average damage (dice only)
Scent	CR +0.2
Swallow Whole	CR +0.05/point of average damage (dice only)
Tail Sweep	CR +0.05/point of average damage (dice only)
Telepathy	CR +0.2
Trample	CR +0.05/point of average damage (dice only)
Tremorsense	CR +0.1

eg. Mariliths Constrict Ability (4d6) = CR +0.7

9.11 IMMUNITIES

Ability Score Loss	CR +0.5
Critical Hits	CR +0.5
Disease	CR +0.2
Energy (each type)	CR +1
Energy Drain	CR +0.5
Magic (as Golem)	CR +10
Mind Affecting Effects	CR +0.5
Petrification	CR +0.2
Poison	CR +0.2
Polymorphing	CR +0.2
Sleep/Paralysis/Stunning	CR +0.3 (+0.1 each)
Spell Level Immunity (each)	CR +0.5*

*Spell Immunity (from 0th to 9th-level) is treated as CR +5 whereas Magic Immunity is treated as CR +10 because Magic Immunity protects against both spells **and** all supernatural effects and abilities.

9.12 INSIGHT/LUCK/PROFANE/SACRED BONUSES

CR +0.125/point of Insight (or Luck; Profane; Sacred Bonuses)
NB. Bonuses to Armor Class are determined in Factor #7

eg. Paragon Creature (+25 Luck bonus to Attacks) = CR +3.125

9.13 POISON

CR +0.06/point of primary ability damage
CR +0.03/point of secondary ability damage
CR +0.08/point of primary ability drain
CR +0.04/point of secondary ability drain
'Death' = CR +0.5 (Primary) or CR +0.25 (Secondary)
'Half' = CR +0.5 (Primary) or CR +0.25 (Secondary)
Used as Breath Weapon (1d4 round delay) = CR x2
Used as a Breath Weapon (At will) = CR x3

eg. Pit Fiends Poison Bite = CR +0.46
Primary Effect: 1d6 (3.5) Constitution damage = CR +0.21
Secondary Effect: 'Death' = CR +0.25

9.14 RAY ATTACKS

Damage Dealing Ray Attacks
CR +0.1/ d8 Alignment based damage
d12 Bane based damage
d3 Divine based damage
d6 Energy based damage
d4 Force based damage
CR +0.2/ 1 point of Permanent damage

Spell Effect Ray Attacks
CR +0.2/level of duplicated Area spell effect
Converting from a Touch Spell = CR x2

Range: CR +0.2/doubling* of typical range
*Remember a double double equals a triple

TABLE 1-7: TYPICAL RAY RANGES BY SIZE

Size	Typical Ray Range
Fine	20ft
Diminutive	40ft
Tiny	60ft
Small	80ft
Medium	120ft
Large	160ft
Huge	200ft
Gargantuan	240ft
Colossal	280ft

Uses/Day:	5/day (or more)	CR x1
	4/day	CR x0.8
	3/day	CR x0.6
	2/day	CR x0.4
	1/day (or less)	CR x0.2

eg. Yrthaks Sonic Lance = CR +0.6
Sonic Lance: 6d6 Energy damage = CR +0.6
Range: (60ft.) = CR x1

9.15 REGENERATION

CR +0.1/point of Regeneration

eg. Tarrasque (Regeneration 40) = CR +4

9.16 SPELL-LIKE ABILITIES

Use Table 1-8 to determine the CR bonus for Spell-like Abilities.

To determine the equivalent spell-level of Epic Spells.
Spellcraft DC ÷ 10 (round down), then add 7.

eg. Hellball (DC 90) 90 ÷ 10 = 9 + 7 = 16th-level spell

TABLE 1-8: SPELL-LIKE ABILITIES

Usable	Challenge Rating Factor			
Always Active	Caster Level	x	Spell Level	x 0.005
At Will	Caster Level	x	Spell Level	x 0.005
5/day (or more)	Caster Level	x	Spell Level	x 0.005
4/day	Caster Level	x	Spell Level	x 0.004
3/day	Caster Level	x	Spell Level	x 0.003
2/day	Caster Level	x	Spell Level	x 0.002
1/day (or less)	Caster Level	x	Spell Level	x 0.001

eg. Pit Fiends Spell-like Abilities = CR +6.102
18 (Caster Level) x 64 (Spell Levels) x 0.005 (At Will) = CR +5.76
18 (Caster Level) x 9 (Spell Levels) x 0.001 (1/day) = CR +0.162
20 (Caster Level) x 9 (Spell Levels) x 0.001 (1/year) = CR +0.18

eg. Succubus Spell-like Abilities = CR +1.64
12 (Caster Level) x 28 (Spell Levels) x 0.005 (At Will) = CR +1.64

9.17 SPELL RESISTANCE

CR +0.1/point above 10

eg. Pit Fiend (SR32) = CR +2.2

9.18 SPELLS (INTEGRATED SPELL LEVELS)

CR +0.44/level of Integrated Sorcerer or Wizard spells
CR +0.38/level of Integrated Cleric spells
CR +0.28/level of Integrated Druid spells
CR +0.15/level of Integrated Bard spells

eg. Planetary (17th-level Cleric) = CR +6.46

APPENDIX ONE: CHALLENGING CHALLENGE RATINGS

9.19 SUMMON

Use Table 1-9 to determine the CR bonus for Summoning.

TABLE 1-9: SUMMONING ABILITY

Usable	Challenge Rating Factor
5/day (or more)	CR Summoned x Spell Level* x 0.005
4/day	CR Summoned x Spell Level* x 0.004
3/day	CR Summoned x Spell Level* x 0.003
2/day	CR Summoned x Spell Level* x 0.002
1/day (or less)	CR Summoned x Spell Level* x 0.001

*Spell Level is always half CR summoned (rounded up)

Divide Result of Table 1-9 by Percentage chance of success (if any).

In the event multiple creatures can be summoned always use the creature with the highest CR. If the highest CR itself denotes multiple creatures summoned then multiply the CR by the average number of creatures.

eg. Pit Fiends Summons = CR +0.462 (21 x 11 x 0.002)
 Highest Summoning (Gelugon) = CR 21
 Spell Level Equivalent of summoning = 11th-level
 Uses: 2/day

eg. Succubus Summons = CR +0.036 (15 x 8 x 0.001 ÷ 100 x 30)
 Highest Summoning (Vrock) = CR 15
 Spell Level Equivalent of summoning = 8th-level
 Uses: 1/day
 30% chance of success (÷ 100, x 30)

9.20 TOUCH ATTACK

Damage Dealing Touch Attacks

CR +0.05/ d8 Alignment based damage
 d12 Bane based damage
 d3 Divine based damage
 d6 Energy based damage
 d4 Force based damage
 CR +0.1/ 1 point of Permanent damage

Spell Effect Touch Attacks

CR +0.1/level of duplicated spell effect

eg. Ghoul (Paralysis Touch) = CR +0.1

9.21 TURN RESISTANCE

CR +0.1/2 points of Turn Resistance

eg. Allip (Turn Resistance +2) = CR +0.1

9.22 UNUSUAL ABILITIES

Antimagic Field (Colossus)	CR +25
Blazefire (Lavawight)	CR +5.6
Blightfire (Winterwight)	CR +4.3
Carapace (Tarrasque)	CR +2.3
Death Throes (Balor)	CR +0.75
Disintegrating Touch (Umbral Blot)	CR +3
Headloss Resistance (Sirrush)	CR +0.2
Natural Invisibility (Invisible Stalker)	CR +0.8
Rust (Rust Monster)	CR +2

9.23 VULNERABILITIES

Light Sensitivity (Kobold)	CR -0.1
Vulnerability to [Energy] (Treant)	CR -0.5
Vulnerability to Sunlight (Bodak)	CR -0.2

10. ABILITY SCORES

When do Ability Scores **not** affect Challenge Rating?

- When gained from lucky dice rolls during character creation.
- When gained from magic items or spells.

When do Ability Scores affect Challenge Rating?

- As part of the Size factor.
- As part of a Template factor.
- As part of a Traits factor (Type/Subtype/Race).
- If the ability score is zero (almost certainly this will be from either a Template or Traits though).
- Any arbitrary changes made by the DM.

How Ability Scores are determined:

CR +0.1/every additional point

CR -0.1/every subtracted point

How Unrated Ability Scores are determined:

Strength 0 = CR -2.2

Always fail Strength checks CR -0.2

Can't interact with surroundings CR -2

Dexterity 0 = CR -2.2

Always fail Dexterity checks CR -0.2

Can't move CR -2

Constitution 0 = CR +1.9 (and special*)

Always fail Constitution checks CR -0.2

Cannot be Raised etc. CR -0.2

Destroyed at 0 hp (No deaths door) CR -0.2

Immune to Ability Score Damage CR +0.5

Immune to Critical Hits CR +0.5

Immune to Energy Drain CR +0.5

Immune to Fortitude saves CR +1

(including Disease; Paralysis; Poison; Sleep; Stun etc.)

No possible Hit Point Bonuses CR -0.1/Hit Dice*

*Already factored into Construct and Undead Hit Dice Modifier.

Intelligence 0 = CR -0.7

Always fail Intelligence checks CR -0.2

Immune to Mind Affecting Effects CR +0.5

Mindless CR -1

A Wisdom or Charisma of 0 means the 'creature' is not self aware and therefore an object. As such it shouldn't have a CR score.

11. SKILL POINTS (BONUS)

CR +0.02/bonus skill points not tied to Level/HD progression

eg. Lich (+48 bonus skill points) = CR +0.96

12. FEATS (BONUS)

CR +0.2/bonus feat not tied to Level/HD progression

eg. Vampire (+5 bonus Feats) = CR +1

13. EQUIPMENT

CR +0.2/level of PC Equipment

CR +0.125/level of NPC Equipment

To determine PC Equipment (Wealth): Level x level x level x 100 gp

To determine NPC Equipment (Wealth): Level x level x level x 25 gp

eg. 10th-level Rogue (with no equipment) = CR +8

10th-level Rogue (with NPC equipment) = CR +9.125

10th-level Rogue (with PC equipment) = CR 10

10th-level Rogue (with 20th-level PC equipment) = CR +12

eg. Balor's Equipment (approx. 80,000 GP total) = CR +2

+1 Vorpal Greatsword (valued at 72,000 GP)

+1 Flaming Whip (valued at 8000 GP)

Requires at least 10th-level PC wealth (100,000 GP) to possess

APPENDIX ONE: CHALLENGING CHALLENGE RATINGS

Revised Challenge Ratings

This section revises the Challenge Ratings of the core and epic monsters using the system outlined over the previous pages.

The first figure gives the raw total (for those who wish to tinker with the creatures abilities). The second figure gives the CR if and when the Golden Rule has been applied. The third figure is simply a rounded down number for quick reference. The fourth figure has been modified using the Silver Rule (see Appendix 3 Design Parameters) for those who wish to invoke that option.

Both the third and fourth columns are valid, however for those simply wanting the most accurate CR use the fourth column.

NB. Any entry denoted 'N/A' is no threat whatsoever.

MONSTERS

	CR Result	Golden Rule	CR	CR
Aboleth	12.852	10.826	10	9
Mage	20.852	-	20	17
Achaierai	10.636	9.518	9	8
Allip	6.7	5.15	5	4
Angel:				
Astral Deva	22.782	19.791	19	16
Planetar	33.598	26.599	26	23
Solar	52.85	41.825	41	38
Animated Object:				
Tiny	1.375	0.8625	2/3	2/3
Small	2.1	1.4	1.25	1
Medium	3.15	2.275	2	1.75
Large	4.65	3.725	3	3
Huge	6.8	6.2	6	5
Gargantuan	10.4	-	10	8
Colossal	16.9	-	16	14
Ankheg	6.075	4.9875	4	4
Aranea	5.22	4.56	4	3
Archon:				
Lantern	4.865	3.1325	3	2.5
Hound	10.43	9.415	9	8
Hound Hero	20.805	-	20	17
Trumpet	24.1	20.45	20	17
Arrowhawk:				
Juvenile	6.25	5.225	5	4
Adult	9.8	-	9	8
Elder	16.05	-	16	13
Assassin Vine	6.325	4.3625	4	3
Athach	16.045	15.7225	15	13
Azer	3.4	3.1	3	2.5
Barghest	6.788	-	6	5
Greater	11.263	-	11	9
Basilisk	7.83	7.815	7	6
Abyssal Greater	20.33	-	20	17
Behir	14.3	13	13	11
Belker	9.285	8.4925	8	7
Blink Dog	4.31	-	4	3
Bodak	11.38	9.74	9	8
Bugbear	3.005	-	3	2.5
Bulette	12.85	12.275	12	10
Celestial Creature - see Templates				
Centaur	5.5	5.15	5	4
Chaos Beast	8.3	-	8	7
Chimera	11.71	11.705	11	10
Choker	2.825	-	2.5	2
Chuul	10.85	-	10	9
Cloaker	7.8	7.2	7	6
Cockatrice	4.8	4.4	4	3
Couatl	15.985	14.2925	14	12
Darkmantle	2.835	2.0675	2	1.5
Delver	14.895	-	14	12

Demon:

Babau	10.815	10.3075	10	8
Balor	35.021	31.5105	31	28
Bebilith	15.75	-	15	13
Dretch	4.4831	3.64155	3.5	3
Glabrezu	22.052	19.426	19	16
Hezrou	16.975	15.4875	15	13
Marilith	29.9576	26.1788	26	23
Nalfeshnee	22.368	20.984	20	17
Quasit	4.401	4.3005	4	3.5
Retriever	14.425	10.7125	10	9
Succubus	11.746	10.073	10	8
Vrock	18.198	16.099	16	13

Derro	3.055	-	3	2.5
Destrachan	9.58	9.19	9	7

Devil:

Barbed Devil	17.1708	16.9854	16	14
Bearded Devil	9.88575	9.142875	9	7
Bone Devil	16.592	15.296	15	13
Chain Devil	10.685	-	10	9
Erinyes	13.52125	13.060625	13	11
Hellcat	12.035	11.6175	11	9
Horned Devil	25.0202	23.0101	23	20
Ice Devil	21.405	20.5025	20	17
Imp	3.713	-	3.5	3
Lemure	3.525	3.1625	3	2.5
Pit Fiend	34.829	30.0145	30	27

Devourer	12.622	11.711	11	10
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Digester	8.51	-	8	7
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Dinosaur:

Deinonychus	5.95	5.175	5	4
Elasmosaurus	9.01	-	9	7
Megaraptor	9.55	9.175	9	7
Triceratops	14.03	-	14	12
Tyrannosaurus	14.13	-	14	12

Dire Animal:

Dire Ape	5.76	5.63	5	4
Dire Badger	2.95	-	2.5	2.5
Dire Bat	4.76	4.58	4	3.5
Dire Bear	10.15	-	10	8
Dire Boar	5.85	-	5	5
Dire Lion	7.69	-	7	6
Dire Rat	0.86	-	2/3	2/3
Dire Shark	11.435	-	11	9
Dire Tiger	12.99	-	12	11
Dire Weasel	2.525	-	2.5	2
Dire Wolf	5.44	-	5	4
Dire Wolverine	5.81	5.655	5	4

Doppelganger	4.43	-	4	3.5
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Dragon, Black:

Wyrmling	6.04	6.02	6	5
Very Young	9.29	-	9	8
Young	12.97	-	12	11
Juvenile	15.684	-	15	13
Young Adult	22.286	-	22	19
Adult	27.773	-	27	24
Mature Adult	32.823	-	32	29
Old	36.574	-	36	33
Very Old	40.432	-	40	37
Ancient	44.403	-	44	41
Wurm	51.499	51.2495	51	48
Great Wurm	55.38	-	55	52

Dragon, Blue:

Wyrmling	8.315	-	8	7
Very Young	12.11	-	12	10
Young	14.915	-	14	12
Juvenile	20.46	-	20	17
Young Adult	25.711	-	25	22

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Adult	32.414	31.957	31	28
Mature Adult	38.115	37.0575	37	34
Old	40.365	-	40	37
Very Old	44.35	-	44	41
Ancient	51.699	50.5995	50	47
Wyrmling	55.81	54.905	54	51
Great Wyrmling	60.016	59.758	59	56
Dragon, Green:				
Wyrmling	7.41	-	7	6
Very Young	11.15	-	11	9
Young	14	-	14	12
Juvenile	19.19	-	19	16
Young Adult	24.386	-	24	21
Adult	31.07	30.535	30	27
Mature Adult	34.973	34.7365	34	31
Old	38.902	-	38	35
Very Old	42.838	-	42	39
Ancient	50.06	49.03	49	46
Wyrmling	54.01	53.255	53	50
Great Wyrmling	58.104	57.552	57	54
Dragon, Red:				
Wyrmling	9.41	-	9	8
Very Young	14.37	-	14	12
Young	17.67	-	17	15
Juvenile	20.824	-	20	17
Young Adult	29.546	29.023	29	26
Adult	33.498	33.249	33	30
Mature Adult	37.614	37.557	37	34
Old	44.765	43.3825	43	40
Very Old	48.905	47.7025	47	44
Ancient	53.145	52.0725	52	49
Wyrmling	57.311	56.4055	56	53
Great Wyrmling	65.173	62.5865	62	59
Dragon, White:				
Wyrmling	5.25	4.875	4	4
Very Young	8.26	-	8	7
Young	11.9	-	11	10
Juvenile	14.574	-	14	12
Young Adult	20.646	-	20	17
Adult	23.856	-	23	20
Mature Adult	30.622	-	30	27
Old	34.396	-	34	31
Very Old	38.323	-	38	35
Ancient	42.1	-	42	39
Wyrmling	49.129	-	49	46
Great Wyrmling	53.132	-	53	50
Dragon, Brass:				
Wyrmling	6.103	6.0515	6	5
Very Young	9.316	-	9	8
Young	13.399	-	13	11
Juvenile	16.944	-	16	14
Young Adult	25.046	24.523	24	21
Adult	27.851	-	27	24
Mature Adult	34.325	33.6625	33	30
Old	38.3	37.9	37	34
Very Old	42.199	42.0995	42	39
Ancient	46.31	-	46	43
Wyrmling	53.408	52.204	52	49
Great Wyrmling	57.645	56.5725	56	53
Dragon, Bronze:				
Wyrmling	9.463	9.2315	9	7
Very Young	13.206	-	13	11
Young	16.599	-	16	14
Juvenile	22.332	-	22	19
Young Adult	27.631	27.3155	27	24
Adult	34.372	32.936	32	29
Mature Adult	38.302	37.151	37	34
Old	42.234	41.367	41	38
Very Old	46.182	45.591	45	42
Ancient	53.53	51.515	51	48
Wyrmling	57.504	55.752	55	52
Great Wyrmling	61.817	60.1585	60	57
Dragon, Copper:				
Wyrmling	6.59	-	6	5
Very Young	9.84	-	9	8
Young	13.96	-	13	12
Juvenile	17.53	-	17	15
Young Adult	24.766	-	24	21
Adult	29.166	-	29	26
Mature Adult	36.08	35.29	35	32
Old	39.304	39.152	39	36
Very Old	43.192	-	43	40
Ancient	47.235	-	47	44
Wyrmling	54.343	53.4215	53	50
Great Wyrmling	58.533	57.7665	57	54
Dragon, Gold:				
Wyrmling	11.21	-	11	9
Very Young	16.32	-	16	14
Young	19.77	-	19	17
Juvenile	23.672	-	23	20
Young Adult	31.965	30.9825	30	27
Adult	36.103	35.3015	35	32
Mature Adult	40.211	39.6055	39	36
Old	47.717	45.6085	45	42
Very Old	51.761	49.8805	49	46
Ancient	56.265	54.3825	54	51
Wyrmling	63.507	60.2535	60	57
Great Wyrmling	68.212	64.856	64	61
Dragon, Silver:				
Wyrmling	10.165	-	10	8
Very Young	13.96	-	13	12
Young	17.205	-	17	14
Juvenile	23.002	-	23	20
Young Adult	28.404	-	28	25
Adult	39.156	34.0445	34	31
Mature Adult	39.156	38.328	38	35
Old	43.224	42.612	42	39
Very Old	47.227	46.8635	46	43
Ancient	54.0675	52.53375	52	49
Wyrmling	58.71	57.105	57	54
Great Wyrmling	66.434	63.217	63	60
Dragon Turtle	18.92	18.46	18	15
Dragonne	12.71	12.205	12	10
Drider	9.464	8.032	8	6
Dryad	3.096	-	3	2.5
Dwarf	2.01	1.555	1.5	1.25
Duergar	2.328	1.714	1.5	1.25
Eagle, Giant	5.03	-	5	4
Eladrin:				
Bralani	11.747	10.0735	10	8
Ghaele	25.676	19.838	19	16
Elemental, Air				
Small	4.075	3.1375	3	2.5
Medium	7.8	6.1	6	5
Large	10.9	9.85	9	8
Huge	17.05	-	17	14
Greater	20.7	-	20	17
Elder	22.35	-	22	19
Elemental, Earth				
Small	3.75	2.975	2.5	2.5
Medium	5.55	4.975	4	4
Large	10	9.4	9	8
Huge	15.9	-	15	13
Greater	19.35	-	19	16
Elder	21.2	-	21	18

IMMORTALS HANDBOOK

APPENDIX ONE: CHALLENGING CHALLENGE RATINGS

Elemental, Fire					Hag:				
Small	3.475	2.8375	2.5	2	Annis	9.238	8.819	8	7
Medium	5.125	4.7625	4	4	Green Hag	9.385	-	9	7
Large	11.05	9.925	9	8	Sea Hag	5.41	4.505	4	3
Huge	17.35	-	17	14	Half-Celestial - see Templates				
Greater	21	-	21	18	Half-Dragon - see Templates				
Elder	22.65	-	22	19	Half-Fiend - see Templates				
Elemental, Water					Halfling	1.305	-	1.25	1
Small	3.335	2.7675	2.5	2	Harpy	8.285	-	8	7
Medium	5.185	4.7925	4	4	Harpy Archer	14.76	-	14	12
Large	9.76	9.28	9	7	Hell Hound	5.145	-	5	4
Huge	15.71	-	15	13	Nessian	13.345	-	13	11
Greater	18.96	-	18	16	Hippogriff	5.3	4.3	4	3.5
Elder	20.61	-	20	17	Hobgoblin	1.505	1.4525	1.25	1
Elf	1.285	-	1.25	1	Homonculus	3.8	2.8	2.5	2
Drow	2.185	1.7925	1.75	1.5	Howler	8.4375	8.41875	8	7
Ethereal Filcher	4.47	-	4	3.5	Hydra:				
Ethereal Marauder	2.795	2.6975	2.5	2	Five-headed	10.165	8.3325	8	7
Ettercap	4.52	-	4	3.5	Six-headed	11.54	9.67	9	8
Ettin	9.92	-	9	8	Seven-headed	13.115	11.1075	11	9
Fiendish Creature - see Templates					Eight-headed	14.49	12.445	12	10
Formian:					Nine-headed	16.065	13.8825	13	11
Worker	3.18	2.29	2	1.75	Ten-headed	17.44	15.22	15	13
Warrior	7.75	6.675	6	5	Eleven-headed	19.015	16.6575	16	14
Taskmaster	10.25	9.325	9	8	Twelve-headed	24.59	20.095	20	17
Myrmarch	17.862	17.331	17	14	Hydra, Cryo/Pyro				
Queen	30.14	29.07	29	26	Five-headed	12.165	9.3325	9	8
Frost Worm	19.575	18.8375	18	16	Six-headed	13.84	10.82	10	9
Fungus					Seven-headed	15.715	12.7575	12	10
Shrieker	-	-	-	N/A	Eight-headed	17.39	13.895	13	11
Violet Fungus	4.4	3.1	3	2.5	Nine-headed	19.265	15.4825	15	13
Gargoyle	4.92	4.86	4	4	Ten-headed	20.94	16.97	16	14
Genie:					Eleven-headed	22.815	18.5575	18	15
Djinni	11.25	10.525	10	9	Twelve-headed	28.69	22.145	22	19
Efreeti	13.37	-	13	11	Inevitable:				
Janni	7.275	-	7	6	Kolyarut	13.28	12.469	12	10
Ghost - see Templates					Marut	19.946	16.723	16	14
Ghoul	3.14	2.47	2	2	Zeলেখut	11.52	9.176	9	7
Ghast	5.04	4.32	4	3.5	Invisible Stalker	10.2	9.5	9	8
Giant:					Kobold	0.645	-	2/3	2/3
Cloud Giant	16.815	-	16	14	Kraken	24.938	-	24	22
Fire Giant	13.55	-	13	11	Krenshar	2.825	2.7125	2.5	2
Frost Giant	12.375	-	12	10	Kuo-Toa	2.93	2.665	2.5	2
Frost Giant Jarl	20.175	-	20	18	Lamia	9.151	8.951	8	7
Hill Giant	10.55	-	10	9	Lammasu	12.168	10.634	10	9
Stone Giant	12.21	-	12	10	Golden	18.654	16.827	16	14
Storm Giant	18.605	-	18	16	Lich - see Templates				
Gibbering Moulder	8.856	6.628	6	5	11th-level	18.75	18.175	18	15
Girallon	8.71	-	8	7	Lillend	10.095	9.9475	9	8
Gnoll	2.05	-	2	1.5	Lizardfolk	2.79	2.45	2	2
Gnome	1.4625	1.43125	1.25	1	Locathah	2.61	2.405	2	2
Svirfneblin	2.283	1.8415	1.75	1.5	Lycanthrope - see Templates				
Goblin	0.985	-	2/3	2/3	Magmin	3.541	2.8705	2.5	2
Golem:					Manticore	8.58	8.19	8	7
Clay Golem	19.6	13.65	13	11	Medusa	7.82	7.51	7	6
Flesh Golem	16.5	11.4	11	9	Mephit:				
Iron Golem	22.4	17.5	17	15	Air Mephit	3.668	-	3.5	3
Stone Golem	19.9	14.85	14	12	Dust Mephit	3.668	-	3.5	3
Greater	32.3	30.85	30	27	Earth Mephit	3.568	-	3.5	3
Gorgon	9.875	-	9	8	Fire Mephit	3.743	-	3.5	3
Gray Render	11.23	-	11	9	Ice Mephit	4.143	-	4	3.5
Grick	3.8	3	3	2.5	Magma Mephit	3.743	-	3.5	3
Griffon	9.2	9.15	9	7	Ooze Mephit	3.668	-	3.5	3
Grimlock	3.4	2.9	2.5	2	Salt Mephit	3.568	-	3.5	3
Guardinal:					Steam Mephit	3.743	-	3.5	3
Avoral	13.95	11.875	11	10	Water Mephit	3.608	-	3.5	3
Leonal	18.98	17.89	17	15	Merfolk	1.61	1.505	1.5	1.25
					Mimic	8.0675	-	8	6
					Minotaur	8.89	8.045	8	6

IMMORTALS HANDBOOK

APPENDIX ONE: CHALLENGING CHALLENGE RATINGS

Mohrg	9.075	-	9	7	Skum	3.85	3.025	3	2.5
Mummy	8.53	7.865	7	6	Slaad:				
Mummy Lord	17.78	-	17	15	Red	10.63	10.215	10	8
Naga:					Blue	13.6208	12.4104	12	10
Dark Naga	10.57	10.235	10	8	Green	13.6668	13.1334	13	11
Guardian Naga	13.8	12.95	12	11	Gray	13.7428	-	13	11
Spirit Naga	11.535	10.7175	10	9	Death	22.6992	21.8496	21	18
Water Naga	10.095	8.8975	8	7	Spectre	8.35	7.325	7	6
Night Hag	13.485	12.3425	12	10	Sphinx:				
Nightmare	11.5	9.85	9	8	Androsphinx	15.98	15.79	15	13
Cauchemar	20.05	-	20	17	Criosphinx	11.45	-	11	9
Nighshade:					Gynosphinx	10.795	10.5975	10	9
Nightcrawler	34.275	28.3875	28	24	Hieracosphinx	10.43	-	10	8
Nightwalker	27.545	23.2225	23	20	Spider Eater	6.7	5.95	5	5
Nightwing	22.78	19.04	19	16	Sprite:				
Nymph	9.128	7.564	7	6	Grig	3.077	1.7885	1.75	1.5
Ogre	5.225	4.8125	4	4	Nixie	2.168	1.584	1.5	1.25
Ogre Barbarian	8.3875	-	8	7	Pixie	3.248	2.124	2	1.75
Ogre Mage	8.506	7.003	7	6	Stirge	1.315	1.3075	1.25	1
Ooze:					Swarm - see also Templates				
Black Pudding	10.86	9.93	9	8	Bat	8.81	6.055	6	5
Elder	17.26	-	17	14	Centipede	11.315	9.7075	9	8
Gelatinous Cube	6.5	5.05	5	4	Hellwasp	17.13	16.365	16	14
Gray Ooze	6.5	4.1	4	3.5	Locust	9.96	7.68	7	6
Ochre Jelly	7.425	6.4125	6	5	Rat	5.59	4.995	4	4
Orc	1.125	0.96	2/3	2/3	Spider	8.505	5.1525	5	4
Otyugh	6.175	-	6	5	Tarrasque	57.22	56.87	56	53
Owl, Giant	5.25	5.225	5	4	Tendriculos	11.6	9.85	9	8
Owlbear	6.5	-	6	5	Thoqqua	5.6	4.45	4	3.5
Pegasus	6.1	5.65	5	4	Titan	33.02	30.51	30	27
Phantom Fungus	2.89	2.345	2	2	Tojanida:				
Phase Spider	6.69	6.595	6	5	Juvenile	7.66	5.93	5	5
Phasm	11.5	-	11	9	Adult	11.26	10.53	10	9
Planetouched:					Elder	18.76	-	18	16
Aasimar	1.808	1.604	1.5	1.25	Treant	10.41	9.055	9	7
Tiefling	1.608	1.504	1.5	1.25	Triton	3.538	-	3.5	3
Pseudodragon	4.06	3.53	3.5	3	Troglodyte	3.03	2.615	2.5	2
Purple Worm	18.93	-	18	16	Troll	7.4	7	7	6
Rakshasa	11.59	10.695	10	9	Troll Hunter	12.55	-	12	10
Rast	6.375	5.9875	5	5	Unicorn	6.778	5.989	5	5
Ravid	7.15	5.675	5	4	Celestial Charger	17.783	-	17	15
Remorhaz	12.58	10.84	10	9	Vampire - see Templates				
Roc	17.48	16.73	16	14	5th-level	11.7	9.85	9	8
Roper	16.81	14.905	14	12	13th-level	20.075	-	20	17
Rust Monster	4.9	-	4	4	Vampire Spawn	9.77	6.685	6	5
Sahuagin	3.55	2.975	2.5	2.5	Vargouille	1.95	1.675	1.5	1.25
Salamander:					Wight	4.51	4.055	4	3
Flamebrother	5.28	-	5	4	Will-O'-Wisp	10.8	10.35	10	8
Average	10.685	-	10	9	Winter Wolf	8.105	7.9525	7	6
Noble	19.625	-	19	16	Worg	4.03	-	4	3
Satyr	4.616	-	4	3	Wraith	6.7	5.6	5	4
Sea Cat	8.46	8.13	8	6	Dread Wraith	14.7	14.45	14	12
Shadow	5.915	4.3075	4	3.5	Wyvern	12.71	11.605	11	9
Greater	8.865	8.4825	8	7	Xill	7.1	7.05	7	6
Shadow Mastiff	6.63	6.115	6	5	Xorn:				
Shambling Mound	10.55	8.875	8	7	Minor Xorn	7.516	5.858	5	5
Shield Guardian	10.3	-	10	8	Average Xorn	11.916	10.858	10	9
Shocker Lizard	4.13	3.365	3	2.5	Elder Xorn	19.616	-	19	16
Skeleton:					Yeth Hound	4.71	4.455	4	3.5
Human	1.166	0.933	2/3	2/3	Yrthak	15.08	14.38	14	12
Wolf	1.516	1.458	1.25	1.25	Zombie:				
Owlbear	4.166	3.833	3.5	3	Kobold	-0.009	-	1/3	1/3
Troll	4.416	-	4	3.5	Human	0.066	-	1/2	1/2
Chimera	6.716	-	6	5	Troglodyte	1.691	-	1.5	1.25
Ettin	6.166	-	6	5	Bugbear	1.991	-	1.75	1.5
Megaraptor	8.866	8.633	8	7	Ogre	4.241	-	4	3.5
Cloud Giant	10.216	-	10	8	Minotaur	5.791	-	5	4
Red Dragon	12.716	-	12	10	Wyvern	6.416	-	6	5
					Gray Render	8.116	-	8	6

APPENDIX ONE: CHALLENGING CHALLENGE RATINGS

ANIMALS

Ape	4.66	4.53	4	3.5
Baboon	0.91	-	2/3	2/3
Badger	0.63	-	2/3	2/3
Bat	-	-	-	N/A
Bear:				
Black	2.33	-	2	2
Brown	6.43	-	6	5
Polar	8.05	-	8	6
Bison	4.45	-	4	3.5
Boar	2.45	-	2	2
Camel	2.75	-	2.5	2
Cat	-1.035	-	1/6	1/6
Cheetah	2.05	-	2	1.75
Crocodile	2.81	-	2.5	2
Giant	8.16	-	8	7
Dog	0.61	-	2/3	2/3
Dog, Riding	1.56	-	1.5	1.25
Donkey	1.89	-	1.75	1.5
Eagle	1.11	1.105	1	2/3
Elephant	12.15	12.125	12	10
Hawk	0.26	-	1/2	1/2
Horse:				
Heavy	3.2	-	3	2.5
Light	2.8	-	2.5	2
Heavy War	4.3	-	4	3.5
Light War	3.25	-	3	2.5
Hyena	1.48	-	1.25	1.25
Leopard	3.34	3.32	3	2.5
Lion	5.8	5.65	5	4
Lizard	-1.455	-	1/7	1/7
Monitor	2.35	-	2	2
Manta Ray	2.86	-	2.5	2
Monkey	-1.08	-	1/6	1/6
Mule	2.74	-	2.5	2
Octopus	1.64	-	1.5	1.25
Giant	9.69	9.245	9	7
Owl	0.7	-	2/3	2/3
Pony	1.15	-	1	2/3
War	1.15	-	1	2/3
Porpoise	1.75	-	1.75	1.5
Rat	-0.8125	-	1/5	1/5
Raven	-1.3375	-	1/7	1/7
Rhinoceros	7.05	-	7	6
Shark:				
Medium	2.31	-	2	1.75
Large	5.51	-	5	4
Huge	8.11	-	8	6
Snake:				
Constrictor	2.605	-	2.5	2
Giant	9.375	-	9	8
Tiny Viper	0.1375	-	1/2	1/2
Small Viper	0.825	0.6875	2/3	2/3
Medium Viper	2.2	-	2	1.75
Large Viper	2.45	-	2	2
Huge Viper	4.9	-	4	4
Squid	2.61	-	2.5	2
Squid, Giant	13.785	13.4925	13	11
Tiger	7.12	-	7	6
Toad	-	-	-	N/A
Weasel	-0.075	-	1/3	1/3
Whale:				
Baleen	11.62	-	11	9
Cachalot	13.02	-	13	11
Orca	8.72	-	8	7
Wolf	1.68	-	1.5	1
Wolverine	3.21	-	3	2.5

VERMIN

Giant Ant:				
Worker	2.49	2.145	2	1.75
Soldier	2.8275	2.31375	2	1.75
Queen	4.94	4.27	4	3.5
Giant Bee	2.485	-	2	2
Giant Bomb Beetle	1.3	-	1.25	1
Giant Fire Beetle	0.55	-	2/3	1/2
Giant Stag Beetle	6.45	6.375	6	5
Giant Praying Mantis	4.14	3.87	3.5	3
Giant Wasp	4.84	4.67	4	4
Monstrous Centipede:				
Tiny	-0.3975	-	1/3	1/3
Small	0.335	-	1/2	1/2
Medium	0.849	-	2/3	2/3
Large	3.625	3.1625	3	2.5
Huge	5.2	-	5	4
Gargantuan	9.305	-	9	8
Colossal	16	-	16	13
Monstrous Scorpion:				
Tiny	0.405	-	1/2	1/2
Small	1.105	1.0025	1	2/3
Medium	2.46	2.13	2	1.75
Large	5.74	5.12	5	4
Huge	9.665	9.3325	9	8
Gargantuan	16.495	-	16	14
Colossal	26.985	-	26	23
Monstrous Spider:				
Tiny	0.035	-	1/2	1/2
Small	0.865	-	2/3	2/3
Medium	1.995	1.8975	1.75	1.5
Large	3.87	3.735	3.5	3
Huge	6.925	-	6	5
Gargantuan	11.85	-	11	10
Colossal	20.73	-	20	17

EPIC MONSTERS

Abomination:				
Anaxim	48.065	41.1325	41	38
Atropal	82.85	71.125	71	68
Chichimec	41.78	39.79	39	36
Dream Larvae	73.523	64.7615	64	61
Hecatoncheire	150.7	111.75	111	108
Infernal	74.724	65.362	65	62
Phaethon	98.206	92.503	92	89
Phane	57.915	54.1575	54	51
Xixecal	109.94	105.37	105	102
Behemoth Eagle	29.16	-	29	26
Gorilla	28.75	-	28	25
Brachyurus	40.625	-	40	37
Colossi:				
Stone	62.03	53.415	53	50
Flesh	62.725	-	62	59
Iron	80.48	73.84	73	70
Demilich Template +44.316 (includes Lich Template bonus)				
21st-Sorcerer	67.206	43.053	43	40
Devastation Vermin:				
Centipede	82.01	-	82	79
Spider	82.19	-	82	79
Scorpion	88.11	-	88	85
Beetle	96.85	-	96	93
Dragon, Force:				
Wyrmling	30.45	30.225	30	27
Very Young	37.82	37.66	37	34
Young	48.31	46.405	46	43
Juvenile	56.024	54.262	54	51
Young Adult	63.68	61.84	61	58
Adult	71.356	69.428	69	66

APPENDIX ONE: CHALLENGING CHALLENGE RATINGS

Mature Adult	82.707	78.8535	78	75
Old	90.862	86.681	86	83
Very Old	98.626	94.313	94	91
Ancient	106.86	102.18	102	99
Wyrms	118.396	111.698	111	108
Great Wyrms	126.346	119.423	119	116
Dragon, Prismatic:				
Wyrmling	34.11	-	34	31
Very Young	40.498	-	40	37
Young	49.406	-	49	46
Juvenile	56.562	-	56	53
Young Adult	63.236	-	63	60
Adult	73.73	72.865	72	69
Mature Adult	80.467	79.9835	79	76
Old	87.578	87.289	87	84
Very Old	94.561	94.5305	94	91
Ancient	105.606	103.803	103	100
Wyrms	112.61	111.055	111	108
Great Wyrms	120.294	118.647	118	115
Elemental, Primal:				
Air	73.2	-	73	70
Earth	74.2	-	74	71
Fire	73.15	-	73	70
Water	75	-	75	72
Genius Loci	73.85	-	73	70
Gibbering Orb	85.325	57.5125	57	54
Gloom	30.485	30.2425	30	27
Golem:				
Mithral	33.225	29.2125	29	26
Adamantite	44.3	41.05	41	38
Ha-Naga	32.36	27.18	27	24
Hagunemnon	46.915	-	46	43
Hoary Hunter	40.497	-	40	37
Hoary Steed	19.1	17.35	17	14
Hunefer	47.523	46.2615	46	43
Lavawight	48.33	38.565	38	35
Legendary Bear	15.65	-	15	13
Tiger	19.73	-	19	16
Leshay	51.635	50.8175	50	47
Living Vault	73.465	-	73	70
Mercane	8.897	-	8	7
Mu-Spore	40.2	39.35	39	36
Neh-Thalgg	47.82	41.51	41	38
Paragon Template	+28.19			
Prismasaurus	62.8	-	62	59
Pseudonatural Template:				
Base	+21.275			
Every +4 HD	+1.275			
Troll	30.025	18.3125	18	15
Ruin Swarm	28.485	-	28	25
Shadow of the Void	37.298	34.399	34	31
Shape of Fire	35.902	33.701	33	30
Sirrush	42.2	-	42	39
Three-Headed	51.375	-	51	48
Slaad, White	51.608	42.604	42	39
Slaad, Black	90.361	65.4805	65	62
Tayallah	38.765	-	38	35
Thorciasid	26.85	-	26	23
Titan, Elder	95.942	-	95	92
Treant, Elder	57.71	56.355	56	53
Umbral Blot	41.85	40.875	40	37
Uvuudaum	54.416	53.808	53	50
Vermiurge	41.09	-	41	38
Winterwight	44.13	36.465	36	33
Worm That Walks Template: +15.72				
23rd-level	36.996	36.898	36	36

EXAMPLES

Human Zombie = CR 1/3

Traits: Undead (Mindless)	-1.1
Hit Dice: 2 HD Undead (Mindless)	+0.7
Speed: Can't Run	-0.2
Armor Class: +2 Natural Armor	+0.2
Full Attack: 3.5 (1d6)	+0.35
Special: DR 5/Slashing	+0.166
Single Actions only	-0.25
Feats: Toughness Feat	+0.2
Total	+0.066 (0 rounded)

Balor = CR 31

Size: Large	+1.2
Traits: Outsider and Demon	+1.9
Hit Dice: 20 HD Outsider	+14
Speed: Fly 90 ft (good)	+0.8
Armor Class: +19 Natural Armor	+1.9
Full Attack: 21.25	+2.125
Special: Death Throes	+0.75
Entangle	+0.2
Spell-like Abilities	+6.64
Summon	+0.496
DR 15/cold iron and good	+0.75
Flaming Body	+0.3
Spell Resistance	+1.8
Skills: 16 bonus skill points	+0.16
Equipment: As 10th-level PC	+2
Total	35.021
After Golden Rule	31.5105 (31 rounded)

Iron Collosi = CR 73

Size: Colossal (No Constitution)	+2.8
Traits: Construct	+0.7
Hit Dice: 96 HD Construct	+33.6
Speed: Can't Run	-0.2
Armor Class: +60 Natural Armor	+6
Full Attack: 84 (12d6 x 2)	+8.4
Special: Breath Weapon	+1.68
Anti-Magic Field	+2.5
Rustproof	+1
DR 20/adamantite and epic	+1.5
Total	80.48
After Golden Rule	73.84 (73 rounded)

Substituting Core Rules

Should you wish to use the core rule CRs in place of these CRs but still utilise the EL system presented here (see Appendix 2) the easiest conversion system is to multiply CRs by x 1.5 (multiply Dragons by x2).

eg. A Balor (CR 20 by the core rules) would become CR 30

A Great Red Wyrms Dragon (CR 26 by the core rules) would become CR 52

You can also use this method to quickly convert monsters from other published sources.

Vice versa if you wish to use the CR rules herein but retain the official EL rules simply apply the above in reverse. Take 2/3rds the listed CR (or 1/2 for Dragons). In such cases **do not** use the Silver Rule modified figures.

eg. A Balor (CR 31) would become CR 20

A Great Red Wyrms Dragon (CR 62) would become CR 31

ENCOUNTERING ENCOUNTER LEVELS

Appendix Two

While CR is a measure of power, Encounter Level (EL) is a measurement of relative power. The single principle of EL is that doubling the actual difficulty of the encounter increases the EL by 2.

eg. An EL of 14 should be twice as difficult as an EL of 12. An EL of 16 should be four times as difficult as an EL of 12. An EL of 18 should be eight times as difficult as an EL of 12 etc.

However CR does not parallel EL in the same way the official rules attest. As we ascend in power, the effect of CR upon EL diminishes. This becomes more and more pronounced the higher we take things.

eg. While a CR 7 opponent may be twice as powerful as a CR 5 enemy; the difference between CR 27 and CR 25 is negligible.

What this system proposes is to outline the relationship between CR and EL. The benefits of introducing these changes are not only that you get to properly balance relative power, but also that it prevents the improper narrowing of the range of ELs for what constitutes a plausible opponent for the party.

eg. The official rules may claim that a 29th-level character is beyond the ability of a party of four or five 20th-level characters to defeat. Or (if we take things to *extremis*); that a party of four or five 100th-level characters could not defeat a 109th-level character. However, playtesting proves this not to be the case.

THE CHALLENGE RATING - ENCOUNTER LEVEL RELATIONSHIP

- To determine the revised EL simply take the CR and apply it to Table 2-1.
- Remember that the Party are also affected by this relationship, however they are dealt with under Party Encounter Level (PEL).

TABLE 2-1: CHALLENGE RATING/ ENCOUNTER LEVEL RELATIONSHIP

CR	EL	CR	EL	CR	EL
1/10	1/10	6	11	192-223	31
1/9	1/9	7	12	224-255	32
1/8	1/8	8-9	13	256-319	33
1/7	1/7	10-11	14	320-383	34
1/6	1/6	12-13	15	384-447	35
1/5	1/5	14-15	16	448-511	36
1/4	1/4	16-19	17	512-639	37
1/3	1/3	20-23	18	640-767	38
1/2	1/2	24-27	19	768-895	39
2/3	2/3	28-31	20	896-1023	40
1	1	32-39	21	1024-1279	41
1.25	2	40-47	22	1280-1535	42
1.5	3	48-55	23	1536-1791	43
1.75	4	56-63	24	1792-2047	44
2	5	64-79	25	2048-2559	45
2.5	6	80-95	26	2560-3071	46
3	7	96-111	27	3072-3583	47
3.5	8	112-127	28	3584-4095	48
4	9	128-159	29	4096-5119	49
5	10	160-191	30	5120-6143	50

eg. Great Wyrms Red Dragon (CR 59) = EL 24

Balor (CR 28) = EL 20

17th-level NPC (CR 15*) = EL 16

*NPC equipment rather than PC equipment remember.

RELATIVE ENCOUNTER LEVELS

However, unlike CR, EL is in fact relative rather than quantitative. While Table 2-1 does a good job in trying to quantify EL, what it doesn't do is explain that any difference to CR, no matter how tiny represents a change in Encounter Level.

TABLE 2-2: ENCOUNTER LEVEL RELATIVITY

CR	Encounter Level
1/4 Base	-8
1/3 Base	-6
1/2 Base	-4
2/3 Base	-2
Less than Base	-1
Base	+/-0
More than Base	+1
x1.5 Base	+2
x2 Base	+4
x3 Base	+6
x4 Base	+8

What the extent of this mechanic means is that two opposing CRs that are not exactly the same cannot have the same EL.

eg. A CR 19 opponent is an EL +1 encounter for a Party of four or five CR 16 (average) characters, even though Table 2-1 shows they are both (CR 16 and CR 19) EL 17.

So while Table 2-1 can generally be used at face value remember that any small difference in CR is also a difference in EL.

DETERMINING ENCOUNTER LEVEL FOR MULTIPLE OPPONENTS (MATCHED EL)

Increasing the number of matched opponents increases the Encounter Level as follows. See Table 2-3.

TABLE 2-3: ENCOUNTER LEVELS FOR MULTIPLE OPPONENTS

# Opponents	Encounter Level
1	EL +/-0
1.5*	EL +1*
2	EL +2
3	EL +3
4-5	EL +4
6-7	EL +5
8-11	EL +6
12-15	EL +7
16-31	EL +8
Above +8 Double the numbers each +1 EL increment	
32-63	EL +9
64-127	EL +10
128-255	EL +11
256-511	EL +12
512-1023	EL +13
1024-2047	EL +14
2048-4095	EL +15
4096+	EL +16

No number of matched opponents can add more than +16 EL.

*See Multiple Opponents (Mixed EL)

eg. 1 Balor (CR 30 = EL 20)

2 Balors = EL 22 (20 + 2)

6 Balors = EL 25 (20 + 5)

66 Balors = EL 30 (20 + 10)

666 Balors = EL 33 (20 + 13)

6,666 Balors = EL 36 (20 + 16)

66,666 Balors = EL 36 (20 + 16)

APPENDIX TWO: ENCOUNTERING ENCOUNTER LEVELS

DETERMINING ENCOUNTER LEVEL FOR
MULTIPLE OPPONENTS (MIXED EL)

For mixed groups, first determine the EL of all matched opponents:

eg. 1 Great Wyrmling Red Dragon (CR 59) = EL 24
 3 Balors (CR 28) = EL 23 (20 + 3)
 10 Vrocks (CR 13) = EL 21 (15 + 6)
 14 Babau (CR 8) = EL 20 (13 + 7)

Then apply the results to Table 2-4.

TABLE 2-4: ENCOUNTER LEVELS FOR MIXED GROUPS

Relationship to Base Unit		
Matched EL	Percentage	Mixed Group EL
	+1600%	EL +8
	+1200%	EL +7
	+800%	EL +6
	+600%	EL +5
	+400%	EL +4
	+300%	EL +3
	+200%	EL +2
	+150%	EL +1
Highest EL	+100%	Highest EL
EL -1	+66.6%	
EL -2	+50%	
EL -3	+33.3%	
EL -4	+25%	
EL -5	+16.6%	
EL -6	+12.5%	
EL -7	+8.3%	
EL -8	+6.2%	

1 Red Dragon EL 24 (EL +/-0) = 100% (the Highest EL)
 3 Balors EL 23 (EL -1) = +66.6%
 10 Vrocks EL 21 (EL -3) = +33.3%
 14 Babau EL 20 (EL -4) = +25%
 Total = 225% of Highest EL = EL 26 (24 + 2)

Party Level

To determine Party Level simply total all character levels (or ECLs in the event of templates etc.) and divide by the number of characters.

eg. 20th-level Rogue; 20th-level Wizard; 15th-level Monk Half-Dragon (ECL 19) and an 18th-level Cleric = Party Level 19 (77 ÷ 4)

Party Encounter Level {PEL}

Once you know the Party Level apply the result to Table 2-1 to determine the Encounter Level. Then modify that by the number of characters in the party as shown in Table 2-5.

TABLE 2-5: PARTY ENCOUNTER LEVEL

# Characters	Party Encounter Level
1 Character	PEL -4
2 Characters	PEL -2
3 Characters	PEL -1
4-5 Characters	PEL +/-0
6-7 Characters	PEL +1
8-11 Characters	PEL +2
12-15 Characters	PEL +3
16-23 Characters	PEL +4

eg. Party Level 19 (with 2 characters) = PEL 15 (EL 17 - 2)
 Party Level 19 (with 4 characters) = PEL 17 (EL 17 +/- 0)
 Party Level 19 (with 13 characters) = PEL 20 (EL 17 + 3)

USING ENCOUNTER LEVELS

By contrasting the opponent (EL) with the party (PEL) we can easily gauge an approximation of both the likelihood of the party victory and also the amount of resources used in such an encounter. This latter element allows DMs to better anticipate how many challenges the party can face before requiring a period to rest; recuperate and restock.

TABLE 2-6: USING ENCOUNTER LEVELS

EL	Party Victory	Party Resources Used
PEL -8	99.3%	1.5%
PEL -6	98.4%	3.1%
PEL -4	96.8%	6.2%
PEL -2	93.7%	12.5%
PEL +/-0	87.5%	25%
PEL +2	75%	50%
PEL +4	50%	100%
PEL +6	25%	100%+
PEL +8	12.5%	100%+

eg. On average the party could handle four PEL -2 encounters and one PEL +2 encounter before requiring respite.

The DM can also use EL to better plan the role of individual opponents by referring to Table 2-7.

TABLE 2-7: OPPONENT ROLE BASED ON ENCOUNTER LEVEL

Opponent EL	Outcome	Role of Opponent
PEL -9 or less	Irrelevant	Background only
PEL -5 to -8	Very Easy	Fodder
PEL -1 to -4	Easy	Footsoldier
PEL +/-0	Moderate	Elite Footsoldier
PEL +1 to +4	Difficult	Henchman
PEL +5 to +8	Very Difficult	Nemesis
PEL +9 or more	Impossible	Background only

- Background Only: Irrelevant and Impossible Encounters are referred to as 'Background only'; essentially this means that they should not be used as legitimate encounters, but simply be included to add campaign flavor.

- Fodder: Very Easy Encounters could be equated to mere Fodder, in that they will almost never tax the PCs abilities, acting as mere diversions or delays to impede their progress, even when encountered in large numbers.

- Footsoldier: Easy Encounters often represent typical grunts who should only ever pose a significant threat to the PCs progress in sufficient numbers.

- Elite Footsoldier: Encounters of Moderate difficulty are dangerous enough to cause the PCs problems should they act in a churlish or overconfident manner.

- Henchman: Difficult Encounters are epitomised by Henchman types. It should be noted that these opponents are virtually equal to the PCs in power. As such PC casualties are a definite possibility.

- Nemesis: A Very Difficult Encounter often represents a party Nemesis. An adversary that is actually more powerful than the PCs themselves. It may well be in the PCs best interests to run from such encounters unless they feel they have an advantage of some kind.

eg. Balor (CR 28 = EL 20)
 Background only versus PEL 29 or better
 Fodder versus PEL 25-28
 Footsoldiers versus PEL 21-24
 Elite Footsoldiers versus PEL 20
 Henchman versus PEL 16-19
 Nemesis for PEL 12-15
 Background only for PEL 11 or less

Experience Points {EXP}

The amount of Experience Points (EXP) awarded depends on two factors. Firstly Party Level. The second factor is the difference between the EL and the PEL. Table 2-8 shows the basic mechanic of how EXP is determined, however refer to Table 2-9 (see page following) to determine encounter EXP.

TABLE 2-8: MECHANICS OF EXPERIENCE POINTS

EL difference	Total EXP Awarded
PEL -9 or less	No EXP awarded
PEL -8	Party Level x 18.75
PEL -7	Party Level x 25
PEL -6	Party Level x 37.5
PEL -5	Party Level x 50
PEL -4	Party Level x 75
PEL -3	Party Level x 100
PEL -2	Party Level x 150
PEL -1	Party Level x 200
PEL +/-0	Party Level x 300
PEL +1	Party Level x 400
PEL +2	Party Level x 600
PEL +3	Party Level x 800
PEL +4	Party Level x 1200
PEL +5	Party Level x 1600
PEL +6	Party Level x 2400
PEL +7	Party Level x 3200
PEL +8	Party Level x 4800

PEL +9 or more Every increase doubles the awarded EXP from two rows previous.

NB. While EXP is generally only awarded for encounters between 8 above or below the PEL. Encounters at PEL +9 or greater should still yield EXP. However, be warned, such encounters should be avoided as they will almost certainly lead to the demise of the PCs.

eg. 20th-level Rogue; 20th-level Wizard; 15th-level Monk Half-Dragon (ECL 19) and an 18th-level Cleric = Party Level 19 ($77 \div 4$)
 PEL 17 (Party Level 19) versus a Vrock (EL 15)
 Encounter = PEL -2 (the encounter level is 2 less than the PEL)
 EXP = 19 (level) x 150 = 2850
 $2850 \text{ EXP} \div 4 \text{ (PCs)} = 712 \text{ EXP each}$

eg. Same party as above.
 PEL 17 (Party Level 19) versus a Balor (EL 20)
 Encounter = PEL +3 (the encounter level is 3 more than the PEL)
 EXP = 19 (level) x 800 = 15,200
 $15,200 \text{ EXP} \div 4 \text{ (PCs)} = 3800 \text{ EXP each}$

eg. Same party as above.
 PEL 17 (Party Level 19) versus a Great Wyrms Red Dragon, 3 Balors, 10 Vrock and 14 Babau (EL 26)
 Encounter = PEL +7 (the encounter level is 7 more than the PEL)
 EXP = 19 (level) x 3200 = 60,800
 $60,800 \text{ EXP} \div 4 \text{ (PCs)} = 15,200 \text{ EXP each}$

So to find the EXP award simply refer to the Party Level column on Table 2-9 and the difference between PEL and EL denotes the appropriate row.

Situational Modifiers

While this effort prides itself on its accuracy, it could never claim to cover the near limitless number of variables involved. It is up to the DM to be vigilant towards any possible balance issues.

The following situational modifiers have no bearing on experience points gained but simply serve to better gauge the outcome of encounters.

COMMON DENOMINATORS

1. DM Leniency = -1 EL

ie. Would you (the DM) occasionally fudge rolls to avoid player casualties?

2.1 Favourable Conditions for Party = -1 EL

ie. Do the conditions impose modifiers?

eg. Party are fighting Kobolds in sunlight.

2.2 Favourable Conditions for Enemy = +1 EL

eg. Party are fighting small opponents in cramped space.

3.1 Foreknowledge of Enemy = -1 EL

ie. Do the party know their opponent and can use that knowledge to exploit some advantage?

eg. The Party know they are facing a Wyrms Red Dragon in its lair, as such they can take appropriate defensive and offensive measures to gain an advantage.

3.2 Foreknowledge of Party = -1 EL

eg. The Red Dragon knows the party are coming with an ancient artifact from the elemental plane of ice and shapechanges into a Silver Dragon in advance of the battle.

4.1 Hazardous Conditions for Party = -2 EL

ie. Are the conditions themselves inflicting damage.

eg. Party battles demons whilst the chamber fills with poison gas.

4.2 Hazardous Conditions for Enemy = -2 EL

5. Party Composition

More than one Cleric = Undead -1 EL

No Clerics = Undead +1 EL

More than one Rogue = Traps -1 EL

No Rogues = Traps +1 EL

More than one Warrior Type* = Party Outnumber opponents -1 EL

More than one Arcane Spellcaster = Opponents outnumber party -1 EL

*Such as a Barbarian, Fighter, Paladin or Ranger

6. Power-Gaming PCs = -1 to -2 EL (DMs discretion)

ie. Are your players characters notably min/maxed?

NB. Only use the -2 EL penalty if the party are unashamed manipulators of the rules, using them to gain every conceivable mechanical advantage.

7.1 Surprise for PCs = -1 EL

ie. Have they successfully ambushed the enemy?

7.2 Surprise for Enemy = +1 EL

APPENDIX TWO: ENCOUNTERING ENCOUNTER LEVELS

TABLE 2-9: DETERMINING EXPERIENCE POINTS

EL difference	Experience Points Awards by Party Level									
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
PEL -8	18.75	37.5	56.25	75	93.75	112.5	131.25	150	168.75	187.5
PEL -7	25	50	75	100	125	150	175	200	225	250
PEL -6	37.5	75	112.5	150	187.5	225	262.5	300	337.5	375
PEL -5	50	100	150	200	250	300	350	400	450	500
PEL -4	75	150	225	300	375	450	525	600	675	750
PEL -3	100	200	300	400	500	600	700	800	900	1000
PEL -2	150	300	450	600	750	900	1050	1200	1350	1500
PEL -1	200	400	600	800	1000	1200	1400	1600	1800	2000
PEL +/-0	300	600	900	1200	1500	1800	2100	2400	2700	3000
PEL +1	400	800	1200	1600	2000	2400	2800	3200	3600	4000
PEL +2	600	1200	1800	2400	3000	3600	4200	4800	5400	6000
PEL +3	800	1600	2400	3200	4000	4800	5600	6400	7200	8000
PEL +4	1200	2400	3600	4800	6000	7200	8400	9600	10,800	12,000
PEL +5	1600	3200	4800	6400	8000	9600	11,200	12,800	14,400	16,000
PEL +6	2400	4800	7200	9600	12,000	14,400	16,800	19,200	21,600	24,000
PEL +7	3200	6400	9600	12,800	16,000	19,200	22,400	25,600	28,800	32,000
PEL +8	4800	9600	14,400	19,200	24,000	28,800	33,600	38,400	43,200	48,000

EL difference	Experience Points Awards by Party Level									
	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th
PEL -8	206.25	225	243.75	262.5	281.25	300	318.75	337.5	356.25	375
PEL -7	275	300	325	350	375	400	425	450	475	500
PEL -6	412.5	450	487.5	525	562.5	600	637.5	675	712.5	750
PEL -5	550	600	650	700	750	800	850	900	950	1000
PEL -4	825	900	975	1050	1125	1200	1275	1350	1425	1500
PEL -3	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
PEL -2	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000
PEL -1	2200	2400	2600	2800	3000	3200	3400	3600	3800	4000
PEL +/-0	3300	3600	3900	4200	4500	4800	5100	5400	5700	6000
PEL +1	4400	4800	5200	5600	6000	6400	6800	7200	7600	8000
PEL +2	6600	7200	7800	8400	9000	9600	10,200	10,800	11,400	12,000
PEL +3	8800	9600	10,400	11,200	12,000	12,800	13,600	14,400	15,200	16,000
PEL +4	13,200	14,400	15,600	16,800	18,000	19,200	20,400	21,600	22,800	24,000
PEL +5	17,600	19,200	20,800	22,400	24,000	25,600	27,200	28,800	30,400	32,000
PEL +6	26,400	28,800	31,200	33,600	36,000	38,400	40,800	43,200	45,600	48,000
PEL +7	34,400	38,400	41,600	44,800	48,000	51,200	54,400	57,600	60,800	64,000
PEL +8	52,800	57,600	62,400	67,200	72,000	76,800	81,600	86,400	91,200	96,000

EL difference	Experience Points Awards by Party Level									
	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th
PEL -8	393.75	412.5	431.25	450	468.75	487.5	506.25	525	543.75	562.5
PEL -7	525	550	575	600	625	650	675	700	725	750
PEL -6	787.5	825	862.5	900	937.5	975	1012.5	1050	1087.5	1125
PEL -5	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500
PEL -4	1575	1650	1725	1800	1875	1950	2025	2100	2175	2250
PEL -3	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000
PEL -2	3150	3300	3450	3600	3750	3900	4050	4200	4350	4500
PEL -1	4200	4400	4600	4800	5000	5200	5400	5600	5800	6000
PEL +/-0	6300	6600	6900	7200	7500	7800	8100	8400	8700	9000
PEL +1	8400	8800	9200	9600	10,000	10,400	10,800	11,200	11,600	12,000
PEL +2	12,600	13,200	13,800	14,400	15,000	15,600	16,200	16,800	17,400	18,000
PEL +3	16,800	17,600	18,400	19,200	20,000	20,800	21,600	22,400	23,200	24,000
PEL +4	25,200	26,400	27,600	28,800	30,000	31,200	32,400	33,600	34,800	36,000
PEL +5	33,600	35,200	36,800	38,400	40,000	41,600	43,200	44,800	46,400	48,000
PEL +6	50,400	52,800	55,200	57,600	60,000	62,400	64,800	67,200	69,600	72,000
PEL +7	67,200	70,400	73,600	76,800	80,000	83,200	86,400	89,600	92,800	96,000
PEL +8	100,800	105,600	110,400	115,200	120,000	124,800	129,600	134,400	139,200	144,000

To determine EXP Awards for PCs over 30th-level multiply 1st-level EXP Awards by character level.

eg. A Party of four 45th-level PCs would receive 20,250 EXP for an EL +1 Encounter: 450 (+1 EL; EXP Award at 1st-level) x 45 (Class Level)
Each character receiving 5062 EXP

DESIGN PARAMETERS

Appendix Three

The Classes and Hit Dice Factors were determined under the following general guidelines. Each facet was rated as a percentage to a single point of Challenge Rating over 20 levels.

1. Ability Score Increases: +1/4 Levels +5%

2. Attacks (Iterative): First Attack +2.5%
Each Iterative Attack +1.25%

eg. Fighters Iterative Attacks +6.25%
Four attacks at 20th-level; 1 base + 3 iterative

NB. Monster HD rates attacks differently, instead each monsters attacks are determined individually (see CR factor #8 Full Attack)

3. Base Attack Bonus: As Fighter 20%
As Cleric 15%
As Wizard 10%

4. Class Features:
Each feat equivalent Class Feature +1%

eg. The Fighters Bonus Feats +11% (11 feats over 20 levels)

If a Class feature is weaker or stronger than a similar ability/feat then try and determine it as a fraction or multiple of that ability/feat.

eg. The Monks AC Bonus +2%
(+4 over 20 levels) is the equivalent of two feats.

Integrated Spell Levels

CR +0.44/level of Integrated Sorcerer/Wizard spells
CR +0.38/level of Integrated Cleric spells
CR +0.28/level of Integrated Druid spells
CR +0.15/level of Integrated Bard Spells
CR +0.02/level of Integrated Ranger/Paladin Spells

5. Equipment: PC Level +20%
NPC Level +12.5%

6. Feats Progression: 1+1/3 Levels +7.66%

7. Hit Dice: d4 +8.3%
d6 +11.65%
d8 +15%
d10 +18.3%
d12 +21.65%

8. Proficiencies:
Light Armor Proficient +1%
Medium Armor Proficient +1%
Heavy Armor Proficient +1%
Shield Proficient +1%
Tower Shield Proficient +1%
Simple Weapon Proficient +1%
Martial Weapon Proficient +1%

eg. The Bard Class Proficiencies +3%
Proficient with Light Armor, Shields and Simple Weapons.

9. Saving Throws: Each Good save +6%
Each Poor save +3%

10. Skill Points (base): Int + 8 +9.2%
Int + 6 +6.9%
Int + 4 +4.6%
Int + 2 +2.3%

11. Class Skills (each) +0.1%

eg. The Monks Skills +6.2%
Skills = Int +4 and Class Skills 18

EXAMPLES

eg. **Fighter** Class Level (Deconstruction)

Ability Scores	+5%
Attacks (Iterative)	+6.25%
BAB (As Fighter)	+20%
Class Features:	
+11 Feats/20 Levels	+11%
Feats (+1/3 Levels)	+7.66%
Hit Dice (d10)	+18.3%
Proficiencies (7)	+7%
Saves (one good, two poor)	+12%
Skills (Int + 2; 7 Class skills)	+3%
Each Fighter Level =	+90.21%
After PC Equipment =	+110.21%

eg. **Dragon Type** Hit Dice (Deconstruction)

Ability Scores	+5%
BAB (As Fighter)	+20%
Feats (+1/3 Levels)	+7.66%
Hit Dice (d12)	+21.65%
Saves (three good)	+18%
Skills (Int + 6)	+6.9%
Each Dragon Hit Dice =	+79.21%

TABLE 3-1: CLASS RATINGS

Class	Standard Level	Epic Level
Barbarian	115.56	102.04
Bard	114.91	99.37
Cleric	131.96	108.32
Druid	124.06	105.96
Fighter	110.21	97.66
Monk	111.56	98.46
Paladin	110.51	98.62
Ranger	115.21	96.22
Rogue	109.41	99.31
Sorcerer	118.61	102.72
Wizard	123.01	103.62
Average	116.72	101.11

SILVER RULE (OPTIONAL)

These results show us that, using this system, at non-epic levels PCs have (on average) a 16% advantage over their monstrous peers.

So if you wanted to be incredibly accurate you could multiply up to the first 20 points of a monsters CR by 85% (x 0.85) to redress class imbalance. This imbalance stops from CR 20 onwards, so for creatures of CR 20+ simply subtract 3 from the score; since that represents the 15% drop in the first 20 points of CR.

eg. Ettin CR 9 (9.92) becomes CR 8 (8.432) under the Silver Rule.
 $9.92 \times 0.85 = 8.432$

eg. Balor CR 31 (31.5105) becomes CR 28 (28.5105).
 $31.4105 - 3 = 28.4105$

NB. However, given the CR/EL relationship, this discrepancy won't have a major impact should you choose to ignore the Silver Rule.

Monster Creation

The following guidelines are not set in stone, but simply present a list of typical parameters to assist in monster creation.

The use of the terms Natural and Supernatural herein is not to discern between creatures with or without supernatural abilities, but rather to outline which are wholly dependant upon their natural physiognomy and which are sustained through other means.

Natural Creature Types Supernatural Creature Types

Aberrations	Constructs
Animals	Fey
Dragons	Outsiders
Elementals*	Undead (Intelligent)
Giants	
Humanoids	
Magical Beasts	
Monstrous Humanoids	
Oozes	
Plants	
Undead (Mindless)*	

*Abilities derived wholly from physical form.

ABILITY SCORE PARAMETERS

Generic Creature Base:	13, 12, 11, 10, 9, 8 (Average 10.5)
Individual Creature Base*:	15, 14, 13, 12, 10, 8 (Average 12)
Possible Modifiers:	Size Template Traits (Type/Subtype/Racial)
Suggested Bonuses:	Natural +1 (total)/Hit Dice Supernatural +2 (total)/Hit Dice

*Allow generic Dragons and Supernatural creatures to use this base.

eg. Sample Large 18 HD Outsider
Base: 15, 14, 13, 12, 10, 8
Modifier: Size (Large): +8 Str, +4 Con, -2 Dex
Bonuses: +36 (Lets say +6 to each ability score for simplicity)
Ability Scores: Str 31, Dex 18, Con 23, Int 18, Wis 16, Cha 14

DAMAGE PARAMETERS

TABLE 3-2: TYPICAL DAMAGE BY SIZE

Size	Typical Damage	Average
Fine	1	1
Diminutive	1d2	1.5
Tiny	1d3	2
Small	1d4	2.5
Medium	1d6*	3.5*
Large	1d8	4.5
Huge	2d6	7
Gargantuan	2d8	9
Colossal	4d6	14

*As per a humanoid with the Improved Unarmed Combat Feat.

TABLE 3-3: DAMAGE MODIFIERS

Description	Modify Attack by	Damage
Attack Mode: Bite/Pincer	+1 Size Category	x1.5
Attack Mode: Claw/Slam	Same Size Category	x1
Attack Mode: Stomp	+2 Size Categories	x2
Attack Mode: Tail Slap	-1 Size Category	x2/3
Attack Mode: Wing Buffet	-1 Size Category	x2/3
Dense (eg. Stone)	+1 Size Category	x1.5
Very Dense (eg. Metal)	+2 Size Categories	x2
Oversized Appendage	+1 Size Category	x1.5
Dominant Appendage	+2 Size Categories	x2

eg. Xorn: Dense (stonelike), Dominant Appendage (maw). So a medium sized Xorn would bite for 4d6 damage. Base 1d6 Medium; +4 Size Categories: Bite (+1), Dense (+1), Dominant Appendage (+2)

EQUIPMENT PARAMETERS

Generic Creatures Equipment Value = NPC Level ≤ HD

Individual Creatures Equipment Value = PC Level ≤ HD

HIT DICE PARAMETERS

While the atypical relationship between Size and Hit Dice is generally only used to infer a minimum figure, it seems much more prudent to indelibly link them together for all natural creatures.

TABLE 3-4: TYPICAL HIT DICE BY SIZE

Size Category	(Size in feet)	Typical Hit Dice
Fine	1/4 ft	1 Hit Point
Diminutive	1/2 ft	1/4 HD
Tiny	1 ft	1/2 HD
Small	2 ft	1 HD
Medium	4 ft	2 HD
Large	8 ft	4 HD
Huge	16 ft	8 HD
Gargantuan	32 ft	16 HD
Colossal	64 ft	32 HD

From Table 3-4 we can then deduce that, for natural creatures at least, each 2 ft. should typically bestow +1 Hit Dice, and vice versa.

eg. A natural creature 30 ft. tall should have 15 HD, whilst a creature with 5 HD will be roughly 10 ft. in either height or length.

Supernatural creatures do not adhere to this mantra; except that when of a certain size they will always have at least the minimum natural Hit Dice for that particular size.

eg. A 20 ft. tall Outsider will always have at least 10 HD, however a 10 HD Outsider can be of any size from Fine to Huge.

Additionally, Constructs (other than Animated Objects) typically have Hit Dice equal to the Caster Level of their creator.

eg. A Construct created by an 18th-level caster will have 18 HD.

NB. There is some inconsistency between these rules and the Giant Type. Whilst Ogres, Ogre Magi and Trolls (treat hunched as stocky) adhere to these rules; Ettins and Giants deviate considerably. In fact given their equally incongruous strength bonus you could be forgiven for thinking they were initially designed to be double the listed size.

However, creatures also differ in shape as well as size and these factors can modify the method for Hit Dice generation given above.

TABLE 3-5: HIT DICE MODIFIERS FOR SHAPE

Description	Example	Hit Dice Modifier
Stocky/Bulky	Dwarf	x1.5
Thin/Frail	Skeleton	x2/3
Overtly Stocky/Bulky	Xorn	x2
Overtly Thin/Frail	Snake	x1/2

eg. A 16 HD Purple Worm (Overtly thin, comparatively) would be approximately 64 ft. in length.

eg. A Fire Giant is 12ft-tall; but also noticeably stocky. Therefore by these rules its Hit Dice would be 9. $12 \text{ (ft.)} \div 2 = 6 \text{ (Hit Dice)} \times 1.5 \text{ (stocky)} = 9 \text{ HD}$ (meaning it would also actually be Huge Size).

INTEGRATED SPELL LEVEL PARAMETERS

Total Integrated Spell Levels ≤ Hit Dice.

eg. A 14 HD Planar should not possess more than 14 Cleric Levels

APPENDIX THREE: DESIGN PARAMETERS

NATURAL ARMOR PARAMETERS

TABLE 3-6: TYPICAL NATURAL ARMOR MODIFIERS

Description	Example	Natural Armor
Normal Skin	Hill Giant	0 + 1/8 HD
Tough Skin/Fur/Bone	Dire Bear	1-2 + 1/4 HD
Scaly Skin/Exoskeleton	Lizardfolk	3-4 + 1/2 HD
Carapace/Plated	Gorgon	5-8 + HD
Construct*	Iron Golem	Material Hardness + HD

*Except Animated Objects

Fey, Outsiders and Undead (Intelligent): Treat as above but add Deflection bonus based on Charisma.

eg. A Pit Fiend would have NA +13 and Deflection +8.

SPECIAL ABILITIES/QUALITIES PARAMETERS

ABILITY SCORE LOSS PARAMETERS

Ability Score Loss (Damage or Drain) $\leq 1/2$ HD

NB. Suggested Minimum Hit Dice of 2 for this ability.

eg. A creature with 6 Hit Dice should not be able to drain more than 3 ability points with a single attack.

BREATH/GAZE/RAY/TOUCH ATTACK PARAMETERS

Damage Dealing ≤ 1 dice/HD

Use d8 for Alignment based damage
 d12 for Bane based damage
 d3 for Divine based damage
 d6 for Energy based damage
 d4 for Force based damage
 1/2 point (per dice) for Permanent damage

Spell Effect \leq HD as spellcaster.

eg. A creature with 40 Hit Dice should not be allowed to deliver more than 40d6 energy damage.

eg. A creature with 15 Hit Dice should not possess a breath weapon spell effect that a 15th-level spellcaster could not cast.

CREATE SPAWN PARAMETERS

Create Spawn (Spawn CR) \leq CR

eg. A CR 30 monster could spawn any monster up to CR 30.

DAMAGE REDUCTION PARAMETERS

Damage Reduction* $\leq 1/2$ HD (round **up** to next unit of 5)

Epic Factor ≤ 20 HD

*Typically designated in units of 5.

eg. A 9 HD creature could have DR 5/(any factor except epic)

DISEASE DAMAGE PARAMETERS

Disease Damage $\leq 2 \times$ HD for 1 day Incubation

Disease Damage \leq HD for 1 hour incubation

Disease Damage $\leq 1/2$ HD for 1 minute Incubation

Disease Damage $\leq 1/4$ HD for 1 round Incubation

eg. A 7 HD creatures disease could deal 2d6 Strength damage with a 1 day incubation period, or 1d3 Strength damage for 1 minute Incubation etc.

ENERGY DRAIN PARAMETERS

Energy Drain $\leq 1/4$ HD

NB. Suggested Minimum Hit Dice of 4 for this ability.

eg. An 11 HD creature could have a 1d4 Energy Drain attack.

FAST HEALING/REGENERATION PARAMETERS

Fast Healing/Regeneration \leq HD

eg. A 10 HD creature could have Regeneration 10, or both Fast Healing 10 and Regeneration 10

INSIGHT BONUS PARAMETERS

(No single) Insight Bonus $\leq 1/2$ HD

NB. Suggested Minimum Hit Dice of 21 (or epic) for this ability.

eg. A 30 HD creature could have a +15 Insight Bonus to AC & Saves.

POISON DAMAGE PARAMETERS

Poison (Primary) $\leq 1/2$ Hit Dice

Poison (Secondary) $\leq 1/4$ Hit Dice

eg. A creature with 7 HD should be allowed up to 1d6 (Primary) and 2d6 (Secondary) damage.

SPELL-LIKE ABILITY PARAMETERS

Caster Level \leq Hit Dice

Total number of Spell-like Abilities \leq Hit Dice

Highest Spell-Level Abilities only function 1/day.

Spell-like Abilities can be drawn from Domains relevant to the creature (use Alignment and two other Domains deemed relevant).

eg. A Balor could draw Spell-like Abilities from the Chaos; Destruction; Evil and Fire Domains.

TABLE 3-7: DETERMINING LEVELS OF SPELL-LIKE ABILITIES

Hit Dice	Spell Levels Allowed								
	1	2	3	4	5	6	7	8	9
1	+1*								
2	+1*								
3		+1*							
4		+1*							
5			+1*						
6			+1*						
7				+1*					
8				+1*					
9					+1*				
10					+1*				
11						+1*			
12						+1*			
13							+1*		
14							+1*		
15								+1*	
16								+1*	
17									+1*
18									+1*
19									+1*
20									+1*

*Of this Spell Level or Lower

eg. A creature with 5 HD could have a caster level of 5 and possess 5 spell-like abilities: 2 1st-level; 2 2nd-level and 1 3rd-level spell which could only be used 1/day.

SPELL RESISTANCE PARAMETERS

Spell Resistance \leq HD + 12

eg. A 22 HD monster could have Spell Resistance up to 34

SUMMONING PARAMETERS

Total CR of Summoned Creatures \leq CR

eg. A CR 20 monster could summon (in one attempt) up to 20 CR worth of creatures.